

THE ARCHITECT & BUILDING NEWS

6 JANUARY 1955 · VOL. 207 · NO. 1 · ONE SHILLING WEEKLY

- METABOLIC WARD, HAMMERSMITH HOSPITAL
- ST. EDMUND'S CHURCH, WEYMOUTH

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- BOTTOM HUNG
- VERTICAL PIVOT HUNG
- SIDE HUNG
- HORIZONTAL SLIDING
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* Major H. Yard supervises NEWCASTLE-UPON-TYNE 21353.

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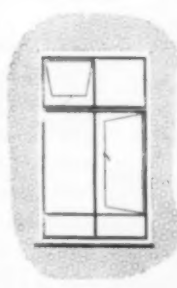
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METAL WINDOWS

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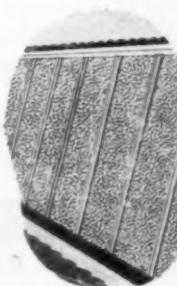
Metal Windows



Wallspan Curtain Walling



Metal Doors



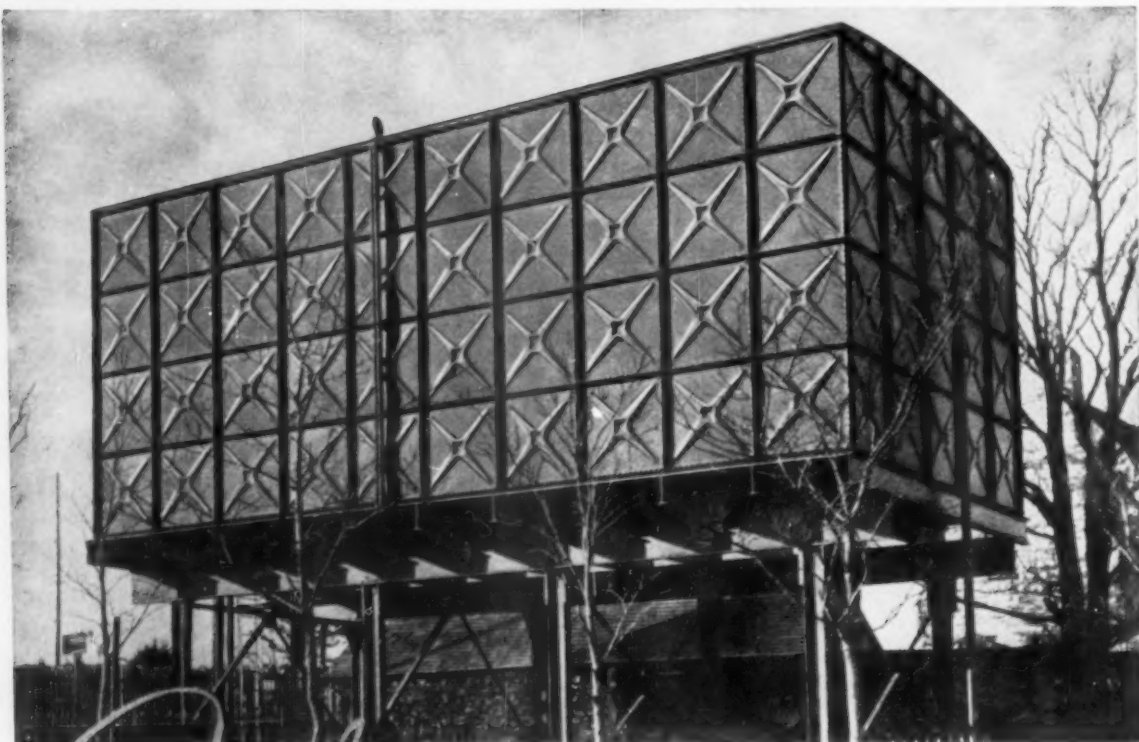
Aluminex



Metal Door Frames



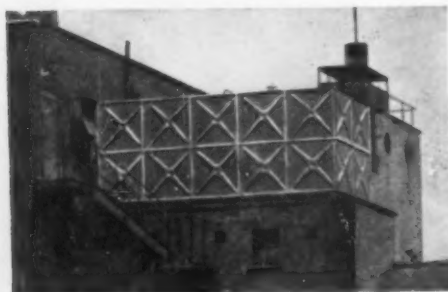
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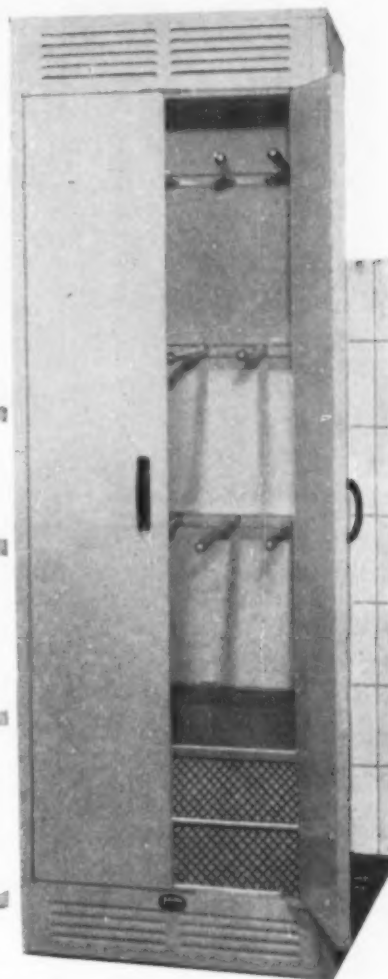
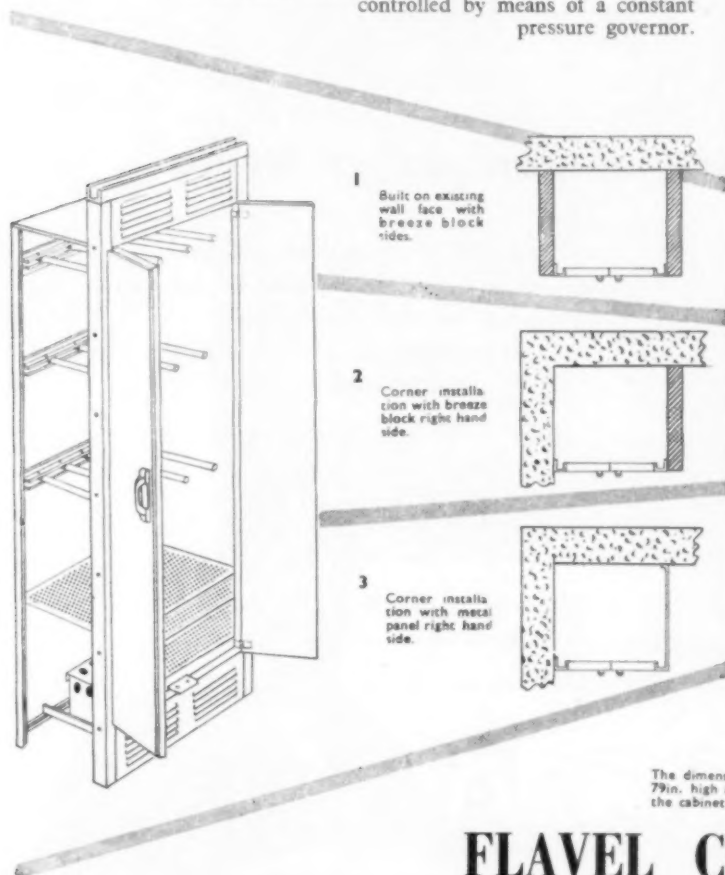


Built-in.. or free standing

The Flavel Clothes Dryer is constructed in order that this may be supplied as a complete unit, or alternatively for building into a recess or corner, by utilizing the main frame assembly and component parts.

The cabinet is strongly constructed of Zintec sheet steel and is finished in cream stove-enamelled paint, fitted with double doors and heated by means of a gas burner unit in the base.

The dryer is large enough to contain an average weekly wash hanging on eleven tubular Bakelite rails at three different heights. A guard is provided above the burner unit and the gas rate controlled by means of a constant pressure governor.



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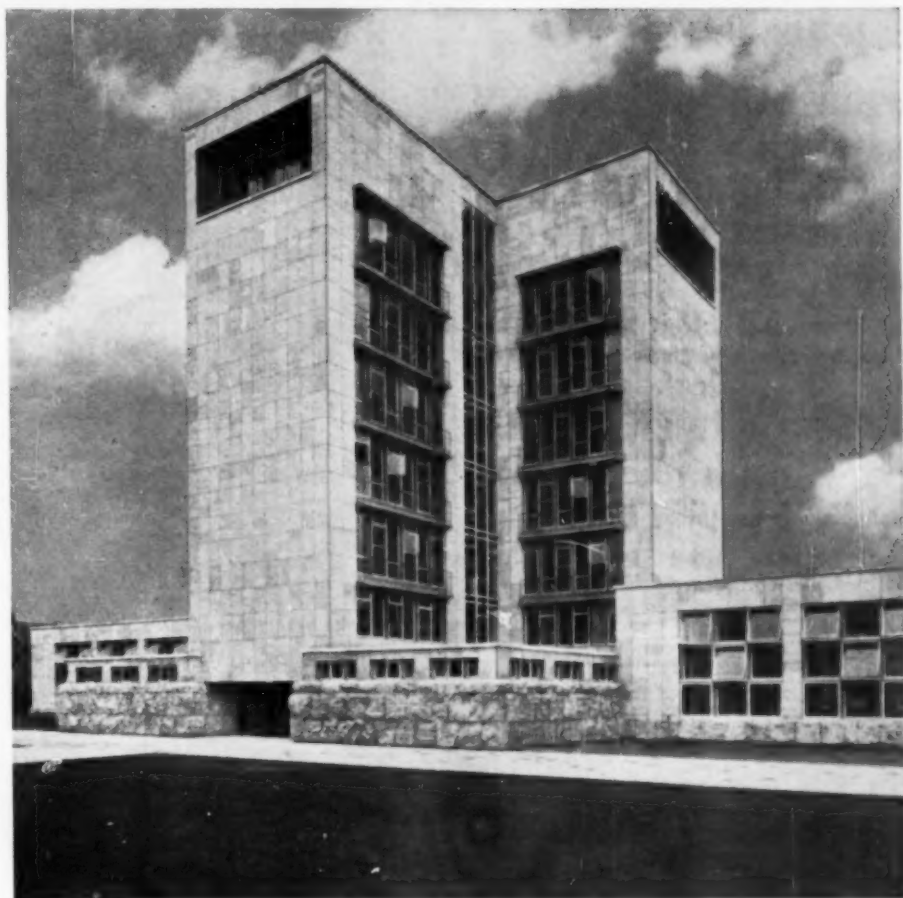
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*Plushet Grove Secondary Girls' School
East Ham Borough Council*

Architect: George Whitby, M.B.E., F.R.I.B.A.

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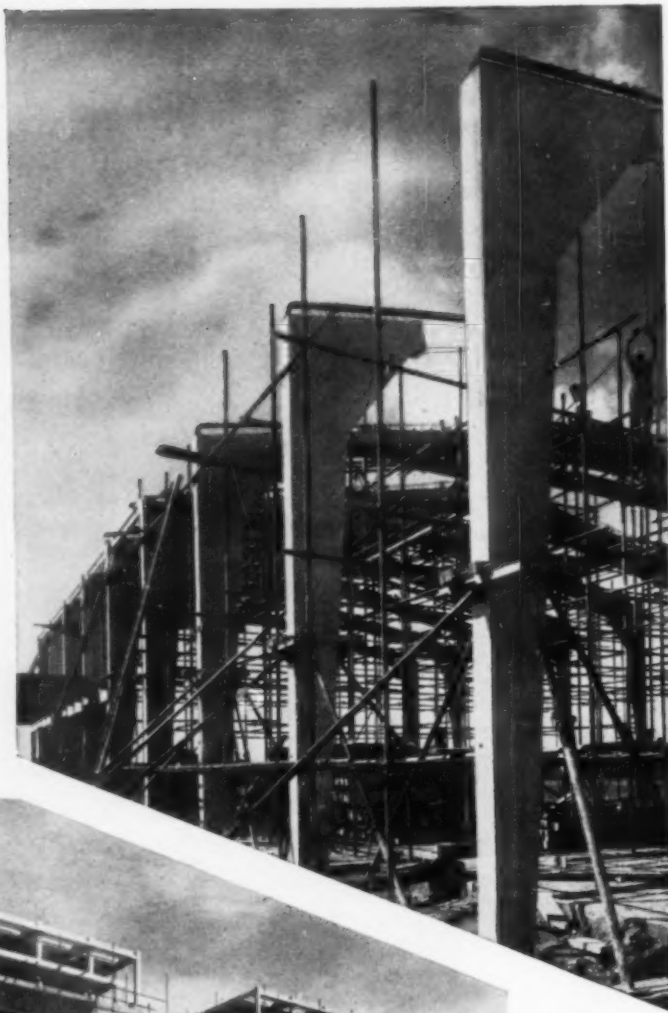


Reading County Borough chose the Orlit System for this school

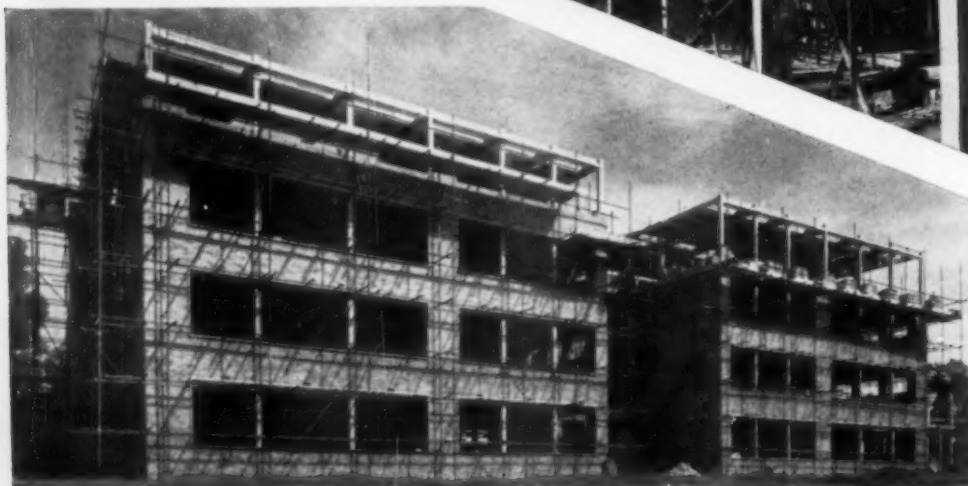
A typical example of how Orlit reinforced concrete framework and window surrounds can be used with 'traditional' brick cladding. The Orlit System can be used for virtually any type of building; it is particularly suitable for factories and their extensions and for single and multi-storey administration buildings.

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The Orlit service embraces the preparation of structural schemes, including foundations, in conjunction with architects and engineers. If required, Orlit Ltd. will carry out foundation work of buildings of their own construction.



Above:
Precast columns to 48'
span Assembly Hall.



Left:
Front elevation showing
traditional brick cladding
and Orlit structural
framework (upper
storey); window surrounds
by Orlit.

MID-WEST STONEHAM BOYS' SECONDARY SCHOOL

Borough Architect: C. H. A. WILLETT, L.R.I.B.A.

Chief Assistant Architect: A. I. R. CRICK, A.R.I.B.A.

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RCH 139

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*Be right
with*

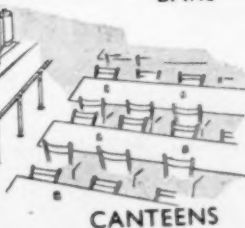
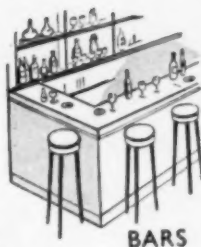
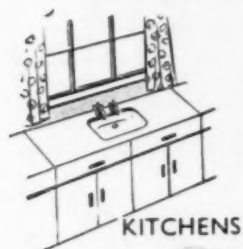


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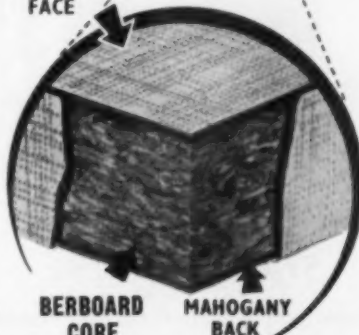
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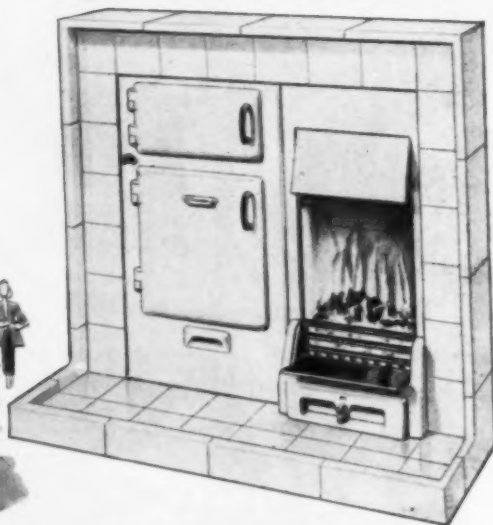


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The Ensign Combination Grate has been re-designed to meet current demands and is a first class efficient appliance. The 14" all-night burning fire is fitted with a patent drop-down front which enables the whole of the fire to be seen and provides greater room radiation.

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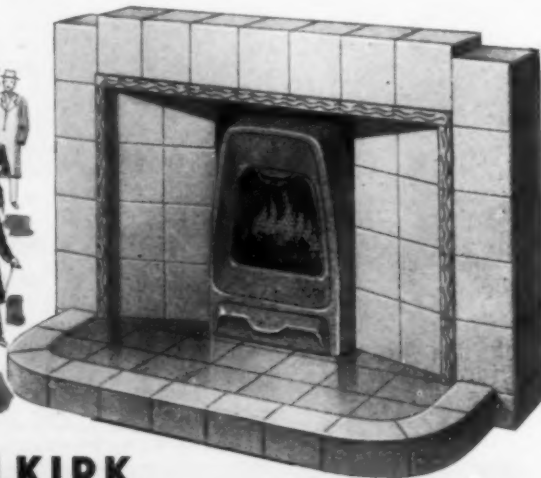
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Other models are available and full details will be given on application.



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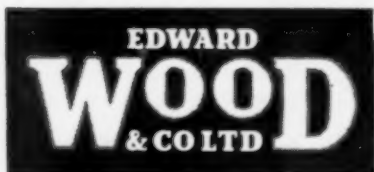


Architect: E. Vincent Harris, O.B.E., F.R.I.B.A.,
19 West Eaton Place, Eaton Square, London, S.W.1

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A view of the
skeleton framework
during construction.



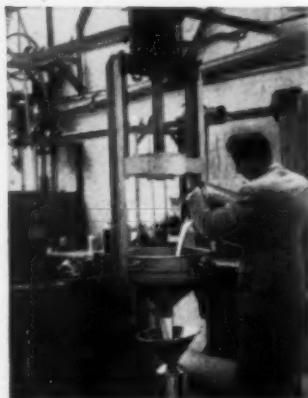
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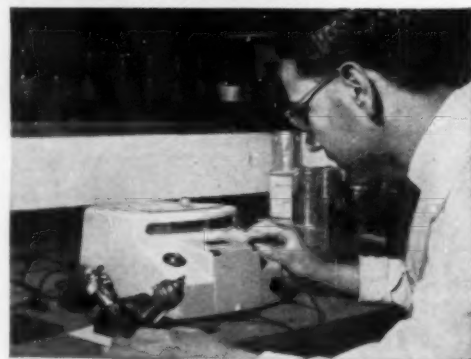


Meet a professional matchmaker!

In this Cellon division science bows to nature in the shape of two eyes — the eyes of an expert colour matcher. So accurate is his judgment that no one instrument can hope to compete in this important task. Scientific aid is always at his elbow, but it is true to say that without the skill and knowledge of the matcher there would be little hope of the speedy and repeated production of special shades. In support of the colour matcher with his natural talent is the chemist with his array of technical data relating to pigments and their characteristics — colour fastness, tinting value, chemical behaviour and so on. This is an instance where, hand in hand, nature and science help to ensure that Cellon paints are as near perfect as possible.



Feeding a matched colour through a mechanically agitated overhead strainer.



Adjustment of the glossmeter for checking sheen.



Strength of dye colours being established by tintometer.



Cerrux Decorative Paints

The Cerrux range of Decorative Finishes includes suitable materials for all classes of decoration, whether for the home, public buildings or the more rigorous conditions of the factory. There is also available Cerreen Satin Emulsion Paint — the ideal wall finish. The Building and Decorating Division of Cellon Limited will gladly give advice on specifications and colour schemes.

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5-PART

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5-PART

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- 3 *Supply of 'backgrounds' for plasterwork
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(Rib-Lath) (Ribmet)
(Angle & Casing Beads)*
- 4 *A complete fixing service*
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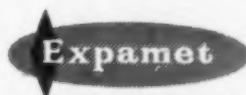
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The Glass Age Development Committee

A committee of architects and engineers, convened by Pilkington Brothers Limited, is making proposals for the development of the Soho Area, which are being published in these advertisements.

This Glass Age Development Committee consists of:

G. A. Jellicoe, F.R.I.B.A., Edward D. Mills, F.R.I.B.A., Ove Arup & Partners.

THE SOHO PROJECT—3

The three main development proposals are:

- i To create a great weather-protected and air-conditioned shopping and office precinct, free of traffic but accessible for goods, private cars, helicopters, and existing public communications.*
- ii To create six 24-storey blocks of good-class residential flats.*
- iii To create a spacious open-air entertainment centre, as a supplement to the existing indoor entertainment.*







All the proposals made for this project are practical possibilities. The techniques and materials to execute them exist now. A preliminary survey of the project and details of the Sub-Basement have already appeared. Further details are given on these two pages—others will be published in a future report.

GROUND FLOOR OR STREET LEVEL

The whole of the existing area is shown as an air-conditioned shopping and office precinct. The ends of existing roads have been enclosed with glass and the whole area has been covered in by water gardens. The pattern of the existing streets has been maintained, but certain blocks have been cleared to form agreeable pedestrian squares. The human scale of Soho, as it now exists, is retained.



KEY TO GROUND FLOOR PLAN

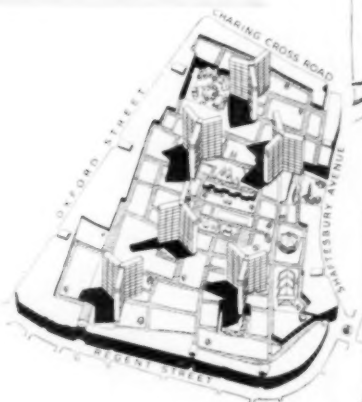
- | | | | |
|---|---|---|----------------------------|
|  | Theatres and Cinemas. |  | Grass. |
|  | Restaurants, Shops, Offices, Pubs, Clubs, Houses etc. |  | 24-storey blocks of flats. |
|  | Lift to gardens and lower basement. | | |
|  | Pedestrian entrances to air-conditioned area. | | |



PILKINGTON BROTHERS

View of St. Anne's, Soho, seen from Shaftesbury Avenue. Certain buildings have been removed to disclose this view. At each corner the entrances to the precinct can be seen. The three open spaces in this scheme have not been excavated, so that tall trees may be retained.

General view of project.



This shows the central market, surrounded by shops, cafes, restaurants, and offices. The roof is formed by the glass underside of the bathing pool, which is shaped in the form of waves. (From below the bathers will appear like fish.)



LIMITED, ST. HELENS, LANC.S.



Ivanhoe Secondary School and Community College, Ashby-de-la-Zouch

Architect: T. A. Collins, A.R.I.B.A. (Architect, Leicestershire County Council).

Contractors: F. Perks and Son, Long Eaton.

● Ibstock facings, widely used in all parts of the country, are no less esteemed in their home terrain. There could have been no better choice than the hand-made Ibstock Golden-Brown bricks, a quarter of a million of which provide the principal basic colour for this fine school and community college at Ashby-de-la-Zouch.

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THE ARCHITECT & BUILDING NEWS

6 January 1955

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DASH MY WIG!

THE mantle of Sir Gerald Kelly has fallen upon Professor Richardson, who now waves it provocatively like a matador's cloak at his ideological foes, "the Latter-day Puritans." With Old Testament rhetoric he cried: "How dare they despise the tradition of our forefathers that begat us." How dare they, Begad!

Nothing, it appears, should be streamlined except water-closets, and there should be a return to figure-heads on ships, ornaments on buildings and fountains in the streets with tritons throwing water at each other—or should it be ink?

The P.R.A. with his noble enthusiasm and delightful personality is cut out to lead a crusade, but will he lead it at the enemy?

"I know some people won't like all this heresy but, by jove, you are going to get it. And I am going to have an army at the back of me. It is an army such as never existed before. I have students who think the same way and are determined to rebel because I have incited them to rebel. They may not see the results of their activities, but in time they will pull everything down and they will show no mercy.

"We want embellishment and we are going to have it, and those who do not want it will find themselves more naked and more ashamed all the time. The idealists are far more important than the realists. The realists give us nothing but stark realism, whereas the idealists aim at beauty which no writer has ever been able to define. That is what the man-in-the-street looks for, and it is our duty to see that he gets it."

His army may be swelled by ignoramuses of all kinds as well as by those who would do much to end the reign of austerity.

Let us be for all the good things, rather than

against certain people whose motives are as sincere and honourable as Professor Richardson's. Having a bash at the modernists as if they were entirely responsible for the economics of the 20th Century is Quixotic. The stream of time has borne us on from the Baroque age into the present in which we live.

To say, for instance, that "A building without Sculpture is simply unthinkable" is unthinking. We have barely established the fact that an applied clump of carved allegory does not *ipso facto* make a building beautiful; but, on the other hand, an unadorned building makes an ideal foil or background to a free-standing sculptural group as rococo as you like, well placed in relation to it. In the Soviet Union embellishments have been the order of the day for some years. Now we have M. Khrushchev, Secretary of the Soviet Communist Party, inveighing against towers, spires and unnecessary ornamentation as too expensive and not worth while.

By all means let us encourage craftsmen in skill and daring. Let us have as much fun as possible. But don't arouse prejudice against the wrong people.

Indeed in many cases it is the "puritans" who have tried hardest to get really bright colour and other "embellishments" back into building without putting on period disguise.

The tide in fact has turned already from the direction of the Royal College of Art towards ornament, colour and pattern. A cross-current of neo-Georgian-cum-William Morris romanticism will simply rock the boat. Professor Richardson will be read and listened to by a great many people with enjoyment and respect. Let him attack what is vulgar, illiterate and boring in art and architecture, but we beg, please don't lead a stage army against a mythical enemy.

EVENTS AND COMMENTS

THE HONOURS LIST

At last proper recognition has been given to the work of the Council of Industrial Design. The Knighthood conferred on Mr. Gordon Russell, the director of the C.o.I.D. is well deserved. In spite of the excellent things which the C.o.I.D. has done in industry and for the public there are still some people who scoff at it. The fact remains that this country's standards of industrial design have greatly improved since the war. Much of the credit for this goes to Mr. Gordon Russell and his staff.

Lord Esher, who becomes a G.B.E., is a tireless worker for the Arts, and serves or has served on the executives of many organizations connected with architecture and the theatre. He was elected an Hon. F.R.I.B.A. in 1950 and is chairman of the Architecture Club.

Mr. H. S. Goodhart Rendel, who is made a C.B.E., is a distinguished P.P.R.I.B.A., whose left and right of Mus. Bach. (Cantab), M.A. (Oxon) is, to say the least, unusual. He is, perhaps, best known for his writings and lectures, and I would put him in the first three of our broadcasters on the Arts. A former Slade Professor of Fine Art at Oxford, he has been both President of the A.A. and Head of its school.

Few other architects, I imagine, have done ten years in the Guards or written a primer on squad drill.

Mr. Cosmo Clark, the academician who runs the Rural Industries Bureau, is also made a C.B.E. His double, too, is an interesting one.

Mr. N. C. Macnamara, chairman of Trollope & Colls, and one of the outstanding figures in the building industry, also becomes a C.B.E. Mr. Macnamara has for many years been a most active member of the Executive of the Building Centre.

Mr. W. H. Ansell is another P.P.R.I.B.A. who becomes a C.B.E. He is Deputy Commissioner of the War Damage Commission. An authority on architectural education, Mr. Ansell was Chairman of the Board from 1931-33, and is a former president of the A.A. He is 82.

The excavation and preservation of the Temple of Mithras in the City of London is suitably rewarded. Mr. W. F. Grimes, director of the London Museum, and Mr. A. V. Bridgland, chairman of the company owning the building under construction, are both made C.B.E.

Among those made O.B.E. I am very pleased to see the following: Mr. Charles Richards, A.A. Dipl., Superintending Architect at the War Office. (This is near home as Mrs. Richards was for some time a member of the staff of the A. & B. N.).

Mr. Michael Ventris, A.A. Dipl., an architect who has made a name for himself by translating a Mycaean script; Mr. Gerald Hill, of Higgs & Hill, who was president of the L.M.B.A. last year; Mr. A. D. R. Cowley, Dipl. Arch., Liverpool, Principal Regional Architect, Birmingham, to the M.o.H.L.G.; and Mr. W. E. Gott, architect to the Potteries Motor Traction Co. Mr. Eric Seal, Deputy Secretary, M.o.W., receives a knighthood. Mr. Seal is well known to the technical Press as a genial chairman of press conferences. Mr. Louis Salzman, the medieval historian, is among the C.B.E.s. His book, "Building in England," will be remembered as outstanding. Congratulations to one and all.

AFTER THE HELICOPTER

It is always annoying to have one's best ideas pinched. I have never liked helicopters, mainly because of their noise. Their landing and take-off requirements, though less than those of normal aircraft, seem to me to make their widespread use in towns doubtful. My idea was that they should land down chimneys and be accommodated in the basements of buildings instead of at roof level. This would do away with the noise nuisance and deliver passengers nearer to their destinations. At the same time it would avoid the rigmarole of strengthening flat roofs.

I have just read an account in the national Press of a German device to be called a Coleopter which takes off up a chimney and lands down one. The chimney would have to be about 50ft in diameter. The height is not given. The unit designing this device is working in Paris. Meanwhile, a private company has begun to build a rooftop helicopter landing place on the Quai de Gronelle, near the Eiffel Tower. The new erection covers the Vélo-drome d'Hiver and a 2,500-car garage.

PARIS IN THE SPRING

The Paris Metro is shortly to have carriages mounted on pneumatic tyres and running on wooden track, more lifts are under consideration but no word has been said about increasing the number of seats (*voyageurs assis* 25, *debout* 80) in the coaches. Models of the proposal will be on view at the Foire de Paris, which is being held this year from May 14 to 30. This Fair is very well worth seeing and usually has good building and mechanical plant sections.

A scheme to brighten French villages under the title Repainting France is being organized by the Ministry of Public Works, Housing and Reconstruction. The idea is that a free issue of pots of paint is made to a village and the villagers are left to get on with it. No information is available about the organization of colour schemes, and it is not difficult to see that, knowing French politics, the whole thing might turn into a prodigious racket.

MAJOR G. B. J. ATHOE

I have seen a copy of an extraordinary letter which Major G. B. J. Athoe (sometime Secretary of the I.A.A.S.), bitter opponent of the Architects' Registration Act and for many years a thorn in the flesh of A.R.C.U.K., has sent out to registered architects on the unattached list. Major Athoe is anxious to represent unattached architects on A.R.C.U.K., and asks for their support. In his letter he makes a staggering allegation against the R.I.B.A. and alleges that it was only by his intervention that the Registration fee was settled at £1 and not £15-20.

Major Athoe's appeal to his "electors" contains no indication of the policy he proposes to adopt other than to return to his previous pastime of throwing bricks at the R.I.B.A. I dare say from time to time we all feel that a well-aimed brick would do good at Portland Place, but if I were an unattached architect and had to throw my brick, as it were, by proxy, I would think twice about asking Major Athoe to do it for me.

PLASTICS

The British Plastics Federation has issued a statement pointing out that plastics materials are often wrongly described as plastic materials. Plastic is an adjective which refers to the susceptibility of a material to plastic deformation. The word plastics can be used as a noun or an adjective.

The B.G. definition of plastics is:—

"A wide group of solid composite materials which are largely organic, usually based on synthetic resins or upon modified polymers of natural origin and possessing appreciable mechanical strength. At a suitable stage in their manufacture most plastics can be cast moulded or directly polymerized to shape. Some plastics are rubber-like, while some chemically modified forms of rubber are considered to be plastics."

Mum! Me plastics mac's all plastered with plastic mastic!

WHAT NEXT IN RUSSIA?

You may have read reports of the Building Conference held in Moscow, at the beginning of December, in the National Press. General dissatisfaction with building progress and costs was expressed and every branch of the industry was lashed by someone or other. The Stalin style of wedding-cake architecture is out, functionalism is in. Fitness for purpose is the battle cry, combined it seems with the maximum use of prefabricated concrete units. The sensation of the Conference came during the speech of the President of the Academy, A. G. Mordvinov. The President was expounding the problems of architectural design when he was brusquely interrupted by Nikita Khrushchev, the First Secretary of the Party, who was sitting at the back of the platform with Malenkov and Molotov (imagine such a scene at the R.I.B.A.). Khrushchev is reported to have leaned forward and said:—

"It seems to me no accident that your report has nothing to say about the part played by the cost per square metre in assessing the value of plans submitted by this or that architect. The cost per square metre is the main thing. This is the yardstick to go by. There is no trace of this yardstick in your report. Is it quite impossible to think in terms of what a building costs...?"

This really was hitting below the belt and the wretched President had nothing to say except that he was not in a position to talk about costs. He finished his speech deflated and doubtless wondering what the future might hold.

Later, however, worse things happened. An architect, Mr. Gradov, with Party blessing, made a speech which might easily have been made by a leading British architect asked for his views on Soviet architecture.

"Formalism, æsthetic distortions, old-fashioned architectural and planning methods, archaic form incomparable with purpose, bombastic, ostentatious approach...." Oh dear, oh dear, oh dear.

Later Mr. Gradov, who must have been very sure of his ground—went for the Academy because of its retrogressive and restrictive influence.

Edward Crankshaw closed his report in the *Observer* with the remark that if there exists an up and coming school of younger architects in the Soviet Union, their day has



WEDDING CAKE ARCHITECTURE

This is not, as might appear at first glance, a critical examination of Stalin-style Soviet architecture by M. Khrushchev's supporters. It is a model of the Paramount Building, New York, in sugar-ice which was exhibited at this time last year at the Hotel and Catering Exhibition, Olympia. It is being closely studied by two chefs.

* * *

come, and their opportunities will be the envy of their colleagues all over the world.

BRUSSELS, 1958

The Brussels exhibition will be quite another affair. It will be international and universal and the largest ever held in Europe. Fifty-six countries have been invited to take part and, believe it or not, the United Kingdom was among the first to accept. The theme of the exhibition is to be Man's mastery of his technical background (e.g., the hydrogen bomb?). Twenty-five million visitors are expected and the show will be open from mid-April till mid-October. Brussels airport is being reorganized and enlarged and it will be ready in time for the exhibition. Helicopters will fly straight to the exhibition grounds which will occupy 450 acres near the Royal Palace of Laeken.

I hope the designer of the British pavilion will be chosen soon. The general design standard of the exhibition can be expected to be very high, with some rogue pavilions from behind the Iron Curtain (unless, of course, the new Russian style is out by then). I hope, too, that our designer will not look back to 1951 but will start with some new ideas. It will be a magnificent opportunity to establish ourselves as something more than able cribbers.

ABNER

NEWS OF THE WEEK

New Year Honours

Privy Councillor: Evelyn Nigel Chetwode Birch, O.B.E., M.P., Minister of Works.

Knight Bachelor: Sydney Gordon Russell, C.B.E., M.C., Designer and Artist.

G.B.E.: The Rt. Hon. Oliver Sylvain Baliol, Viscount Esher, M.B.E., Hon. F.R.I.B.A. For Services to the Arts.

K.B.E.: Eric Arthur Seal, C.B., Deputy Secretary, Ministry of Works.

C.B.E.: William Henry Ansell, M.C., P.P.R.I.B.A., Deputy Commissioner, War Damage Commission, Vice-Chairman, National Buildings Record Council; Neil Cameron MacNamara, Chairman and Managing Director, Trollope & Colls, Ltd.; Harry Stuart Goodhart-Rendel, P.P.R.I.B.A.; Louis Francis Salzman, Medieval Historian; George Stanley Wells, M.C., Deputy Chief Engineer, Ministry of Housing and Local Government.

O.B.E.: Arthur David Richard Cowley, A.R.I.B.A., Principal Regional Architect, Birmingham, Ministry of Housing and Local Government; Gerald Aubrey Hill, Director, Higgs & Hill, Ltd.; Hugh Kelly, General Secretary, Plumbing Trades Union; Percy Nicholas Piggett, Assistant Director for Wales, Ministry of Works; Charles Arthur Richards, A.R.I.B.A., Superintending Architect, War Office; Michael George Francis Ventris, A.R.I.B.A., for services to Mycenaean Paleography; David Watson, Principal, Ministry of Works.

M.B.E.: David Blaikie, Technical Assistant and Clerk of Works, Ministry of Works, serving at H.M. Embassy, Washington; William Elding Gott, Architect, Potteries Motor Traction Co., Ltd.; Leslie Ronald Mustill, Higher Executive Officer, Ministry of Housing and Local Government; Charles Bruce Morton, D.S.O., D.F.C., Assistant to the Chairman, Matthew Hall & Co., Ltd.; Albert George Short, Assistant Regional Director (Building Industries), Ministry of Works; Francis Holden Steele, Senior Executive Officer, Ministry of Works; Joseph Reginald Sockett, Surveyor and Engineer, Atcham Rural District Council, Shrewsbury; Charles Paul Spencer, Chairman, Nottingham Branch, National Federation of Building Trades Employers.

B.E.M.: Patrick Kelly, Bricklayer's mate, Ransomes & Rapier, Ltd., Norwich.

Payments Under the New Planning Act

Forms of application for payments under the Town and Country Planning Act, 1954, which relates to England and Wales, are now available. The Act came into operation on January 1, 1955.

An announcement of comparable arrangements for Scotland will be made shortly.

The persons eligible to apply for payments are those who hold established claims on the fund of £300m. under the Act of 1947 and have sustained loss of development value through the imposition of planning restrictions or in a variety of other ways.

Planning Restrictions

Claims for compensation for planning restrictions are the responsibility of the Ministry of Housing and Local Government in England and Wales. Copies of the forms and of an explanatory leaflet have been sent to the Councils of County Boroughs, Boroughs and Urban and Rural Districts. They should be completed and returned to the Council offices from January 1 onwards.

Central Land Board Payments

Payments will be made by the Central Land Board to people holding established claims who have in a variety of other ways been affected adversely by the provisions of the 1947 Act. The main types of payment will be to:—

(i) Claim holders who paid development charge on the land to which the claim relates;

(ii) Claim holders who sold land privately at a price which did not include the full development value, as measured by the amount of the claim, before November 18, 1952, when development charge was abolished;

(iii) Claim holders who sold land which is the subject of a claim to a public authority at its existing use value;

(iv) Claim holders who bought their claims without the land to which they relate before November 18, 1952.

More detailed information is given in an explanatory leaflet (Form U.I/A), which can be obtained from any office of the Central Land Board.

The Board have sent forms of application for payments to those claim-holders whom, on the information at present available, they have been able to identify as having paid a development charge or as having sold their land to a public authority. Any person, however, who thinks that he is entitled to a payment in respect of any event occurring before January 1, 1955, other than a planning restriction, and has not before that date received an application form from the Board should ask them for one without delay.

The Future of Princes Street, Edinburgh: Proposals by Mr. Stuart R. Matthew

IN the *Edinburgh Evening News* of Thursday, December 9, 1954, under the heading of "Minister of State is consulted on Princes Street," it was stated that "no time is being lost in Edinburgh Corporation's efforts to evolve some well-informed plan to safeguard the character and future dignity of Princes Street. The Earl of Home, Minister of State, was consulted about the plan...representing the Corporation in the discussions were Lord Provost John G. Banks, the Town Clerk and the Town Planning Officer, Mr. T. T. Hewitson." The article goes on to state amongst other things that "the question of Princes Street's changing character has been a matter of great concern to the Planning Committee for some time past."

This, no doubt, is so, but has not Princes Street's character changed from the day that the first of the original buildings was adapted to a new use, probably at a time not now within living memory? Much has been written about the debasement of Princes Street and much fervent admiration has also been expressed. Both views require qualification. Without the unbuilt southern side with its magnificent panorama Princes Street would be no more than a pleasant wide thoroughfare. Its aspect and prospect are its two greatest assets. It is rarely as cold as other streets due to its southern exposure. Viewed from the Castle the street has forceful appeal. Raised above the banks of flowers and the grass forecourt of the gardens its heterogeneous collection of buildings is stimulating and exciting and forms its singular character and charm. It is to be hoped that any future plan will not try to emulate the original conception of this famous street in standardizing a uniform skyline. Pleasant though that was in the original the result of such control to-day would be disastrous. Reasonable control there must be and we are sure that the City Fathers are reasonable men.

We cannot see, however, why this matter should only now become one of urgency as the *Evening News* states in its final paragraphs. Surely the years since the war, giving a period of virtual stagnation in new building, have been used wisely in consideration of the problems involved in development which it was known must occur when building control ended.

On the facing page we illustrate an independent scheme for replanning of the Princes Street hinterland which has already been illustrated in the *Evening News* and the *Scotsman*. This scheme of independent and unofficial thought has been put forward by Mr. Duncan Drummond Young, a business

man of the city, and advocates a development of the principal shopping area in such a way that future control of Princes Street itself will be unaffected, while providing a much needed solution to parking difficulties and at the same time offering twice as much lineal shopping frontage as

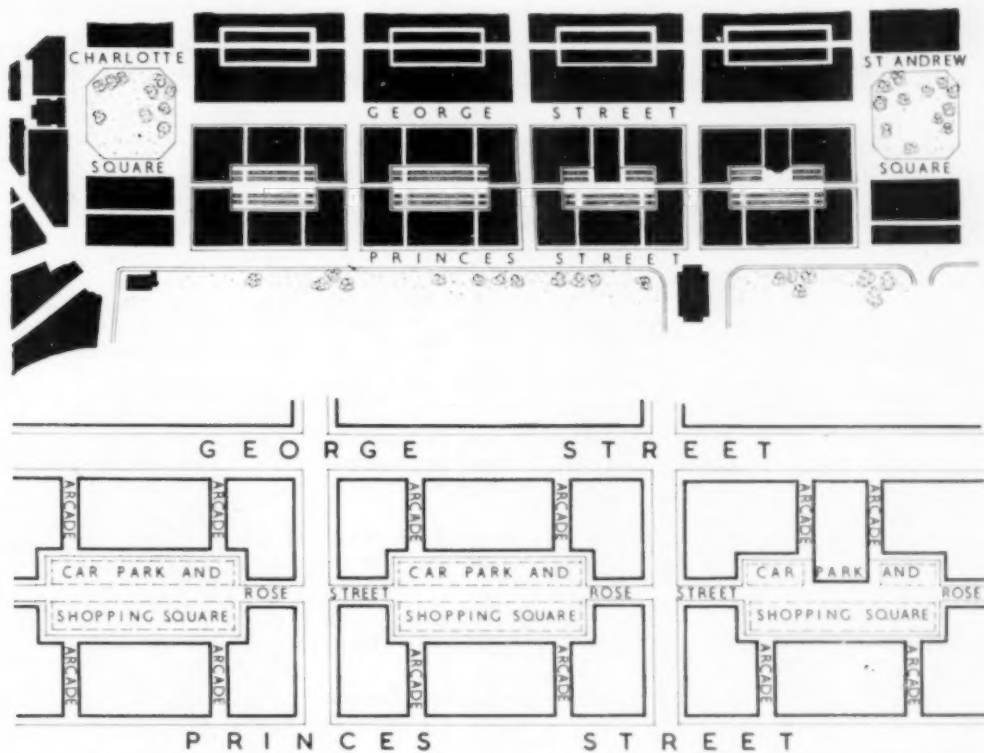
already exists in Princes Street from South Charlotte Street to South St. David's Street.

This is a notable achievement in an area which to the casual observer appears to be already fully developed.

The upper drawing shows the four new shopping squares with car parking

facilities while the lower one shows the the squares to a large scale, having the demolished areas indicated by dotted lines.

The descriptive notes are taken from the notes of the architect who is associated with the proposals, Mr. Stuart R. Matthew, A.R.I.B.A., A.R.I.A.S.



THIS proposal envisages a unified development of the whole George Street-Princes Street area as a coherent shopping centre, provided with proper parking facilities and with easy pedestrian intercommunication. While the proposed development depends only to a small extent on any rebuilding of existing frontages in George Street and Princes Street its effect would be to provide considerable commercial expansion within this prescribed area. The redevelopment proposed rests primarily upon the demolition of the properties in Rose Street, at present a busy and grossly congested thoroughfare. No buildings of architectural quality and few recently built properties are involved; for this purpose the properties may be acquired privately or publicly. The new internal squares, formed by the demolition, at the four main blocks from South Charlotte Street to South St. David Street, would provide parking space for well over 500 vehicles, thus relieving the parking problems in Princes Street and George Street and leaving improved conditions for through traffic. It is then proposed that the sides of these squares should be developed as new shop frontages. These would be of considerable advantage commercially and financially to the proprietors concerned and from the point of view of rateable value. An important feature to note is that a new south frontage would be provided to the existing premises on the south side of George Street—at present grey and sunless. The total length of these new frontages to the squares would be equal to twice the length of Princes Street from South Charlotte Street to South St. David Street. This opening up of the squares would also give architectural opportunities worthy of Edinburgh and their ultimate effect would be to restore some of the dignity and spaciousness enjoyed in the centre of the city in less crowded days. The squares would be larger than the University Old Quadrangle, wider than the Grassmarket and about the size of the square of Saxe Coburg Place. Paved, planted and provided with sculptures and fountains they could be attractive and finely proportioned shopping places.

It is suggested that there should be two or four shopping arcades to each main block to give good pedestrian access and to accommodate, within them, the smaller local businesses which it is so desirable to retain here.

By the nature of the existing layout of this area and of the development proposed, such a plan could be proceeded with in whole or part. While these proposals would have the effect of a major reconstruction of the centre of the city its carrying out would not interfere materially with the functioning of the area concerned.

R.I.B.A. PRIZES AND STUDENTSHIPS, 1955.

The R.I.B.A. Intermediate Design Prize: A Certificate and £100 for the Study of Contemporary Architecture in Europe

"A Museum for Early Motor Cars in a Midland Town."

Mr. A. R. Gilmour, 21, Eliot's Park, Peebles, Scotland.

The Victory Scholarship and £150 for the Advancement of Architectural Education

Mr. J. V. Gibberd (Student R.I.B.A.), 13, Loom Lane, Radlett, Herts.

In the year 1954-55 the sum of 100 dollars has been added to the value of the Scholarship by the generosity of Mrs. Margaret Chadwell, of the United States of America.

Twelve designs for "Exhibition Building and Offices for the Council of Industrial Design" were submitted.

The R.I.B.A. Silver Medal for Measured Drawings and £75

Mr. Neville Whittaker (Student R.I.B.A.), 42, Park Grove, Barnsley.

The Council have also awarded a Certificate of Honourable Mention to Mr. Ian Curry (Student R.I.B.A.), 30, West Park, East Herrington, nr. Sunderland.

The Arthur Gates Prize: A Certificate and £115. For the Promotion of Architecture in Relation to the Application of Geometry to Vaulting, Stability of Edifice and Design
No applications received.

The Hunt Bursary: A Certificate and £95. For the Study of Housing and Town Planning

Five applications were received from:—

Mr. A. H. Bannerman, A.R.I.B.A., Mr. David Cole, A.R.I.B.A., Mr. D. J. Oakley, A.R.I.B.A., Mr. Ian Purdy, A.R.I.B.A., Mr. W. L. Stuart, A.R.I.B.A.

The Council have awarded the Hunt Bursary, and, subject to the specified conditions, the sum of £95 to Mr. A. H. Bannerman, 35, Elmbank Terrace, Aberdeen.

The Neale Bursary: A Certificate and £125. For the Measurement of Old Buildings

Seven applications were received from:—

Mr. H. G. Arnold, A.R.I.B.A., Mr. Gordon Brear, A.R.I.B.A., Mr. R. W. Brunskill, A.R.I.B.A., Mr. D. W. Insall, A.R.I.B.A., Mr. R. E. Race, A.R.I.B.A., Mr. B. P. F. White, A.R.I.B.A., Mr. G. L. Worsley (Student).

The Council have awarded the Neale Bursary, and, subject to the specified conditions, the sum of £125 to Mr. D. W. Insall, Beaumont, Northumbria Drive, Henleaze, Bristol.

The Owen Jones Studentship: A Certificate and £250. For the Improvement and Cultivation of Knowledge of

the Successful Application of Colour as a means of Architectural Expression
Not awarded.

The Council have awarded a Certificate of Honourable Mention and £10 10s to Mr. A. F. Sealey, A.R.I.B.A., 98, Bromsgrove Road, Redditch, Worcs.

The R.I.B.A. Silver Medal and £50 for an Essay.

Not awarded.

The Council have awarded a Certificate of Honourable Mention and £25 to Mr. Maurice J. Brown, A.R.I.B.A., 4, Eastville Avenue, London, N.W.11.

The R.I.B.A. Rose Shipman Studentship Trust: For the Study of Architecture

Eight applications were received from:—

Mr. A. H. Antrum, A.R.I.B.A., Mr. Peter Collins, A.R.I.B.A., Mr. Christopher Gotch, A.R.I.B.A., Mr. Gordon Graham, A.R.I.B.A., Mr. D. H. Matthews, A.R.I.B.A., Mr. R. W. Paine, A.R.I.B.A., Mr. Alan Reed, A.R.I.B.A., Mr. L. H. Wilson, A.R.I.B.A.

The Council have awarded an R.I.B.A. Rose Shipman Studentship of £450 to Mr. Alan Reed, 78, South Hill Park, Hampstead, N.W.3.

The Banister Fletcher Silver Medal for an Essay and £26 5s. For the Study of History of Architecture
Not awarded.

The subject set for this year's competition was "Prefabrication Before 1830."

The R.I.B.A. Alfred Bossom Research Fellowships: For Post-Graduate Research

Five applications were received from:—

Mr. A. H. Antrum, A.R.I.B.A., Mr. C. I. Hobbs, A.R.I.B.A., Mr. D. H. Matthews, A.R.I.B.A., Mr. H. W. Rosenthal, A.R.I.B.A., Mr. D. G. Thornley, A.R.I.B.A.

The Council have awarded an Alfred Bossom Research Fellowship of £250 to Mr. H. W. Rosenthal, 23, Woodland Avenue, Leicester.

The Athens Bursary: £125 for Study at the British School at Athens

Mr. R. R. Meadows, A.R.I.B.A., School of Architecture, The Polytechnic, Regent Street, London.

The Ashpitel Prize, 1954

The Council report that no recommendation can yet be made as full examination results are not available.

The R.I.B.A. Silver Medal and £10 in Books for Students of Schools of Architecture Recognized for Exemption from the Final Examination

Mr. G. F. Polson (Student R.I.B.A.), Glasgow School of Architecture; Mr. Neville Whittaker (Student R.I.B.A.), School of Architecture, King's College,

Newcastle upon Tyne; and Mr. W. G. Jones (Student R.I.B.A.), Welsh School of Architecture, Technical College, Cardiff.

The R.I.B.A. Bronze Medal and £10 in Books for Students of Schools of Architecture Recognized for Exemption from the Intermediate Examination

Mr. George Christie (Student R.I.B.A.), Glasgow School of Architecture.

The Archibald Dawson Scholarship Trust Prizes: Three Scholarships of the Value of £60 each: For the Advanced Study of Construction

Mr. C. E. Hanley (Student R.I.B.A.), Birmingham School of Architecture.

Mr. Peter Willis (Student R.I.B.A.), School of Architecture, King's College, Newcastle upon Tyne.

Mr. A. J. Tomlinson, School of Architecture, Nottingham College of Art.

The R.I.B.A. Prize for Art Schools and Technical Institutions with Facilities for the Instruction of Intending Architects

Mr. J. C. Smith, of the Kingston School of Art.

The R.I.B.A. Prizes for Public and Secondary Schools

(a) Prizes for Essays

A prize of £2 2s to Christopher Hewett, of The College, Bishop's Stortford, for his essay on St. Edmund's College Chapel, Ware.

(b) Prizes for Sketches

(1) A prize of £3 3s to G. Holland, of Manchester Grammar School, for his drawings of Parish Church of St. Mary, Astbury.

(2) A prize of £3 3s to A. C. Martin, of Manchester Grammar School, for his drawings of Parish Church, Gawsorth.

(3) A prize of £2 2s to D. R. Everett, of St. Olaves Grammar School, London, for his drawings of St. Paulinus, Crayford.

ANNOUNCEMENT

Messrs. Minoprio & Spencely & P. W. Macfarlane, Town Planning Consultants and Architects of 18, Seymour Street, W.1, have been selected to plan the development of Baghdad, the capital of Iraq (population approximately 900,000), where a large programme of public works is in hand or is projected. The firm is to provide a Master Plan for the whole city and four larger scale plans of the oldest and most densely built-up areas, including one of the central area. The preparation of the plans will take about two years.

CHANGE OF ADDRESS

R. A. Sefton Jenkins, B.Sc., A.C.G.I., A.M.I.C.E., Consulting Engineer, has moved to 66, Victoria Street, London, S.W.1. The telephone number remains Tate Gallery 9605.

METABOLIC UNIT HAMMERSMITH

HOSPITAL for the Governors of Hammersmith, West London and St. Mark's Hospitals

architect: BASIL WARD,
of Ramsey, Murray & White



From east



From west

THE building stands on a site surrounded by adjoining buildings and fronts the principal through-way in the hospital grounds. It was necessary to retain access to the buildings in the rear for fire fighting. Provision for eight patients in two-bed wards was required, also a treatment and examination room, auxiliary rooms, a large research laboratory and an independent kitchen for the preparation of special diets. One floor containing two wards and a group of auxiliary rooms was to have air-conditioning to maintain constant conditions of temperature and humidity. The building was to be linked to the existing wards for functional reasons. These requirements have been met.

Planning

As it was necessary to have more accommodation on the upper floors than on the ground floor, the upper floors were extended beyond the building line on the

north side and supported on free standing columns on the east.

The typical plan for the upper floors has a wide central corridor leading to two wards facing west, a group of working rooms facing north and the patients' dining and recreation room, with a balcony facing south. On the first floor the nursing station is placed to give maximum supervision of patients; the patients can enjoy privacy and be screened off from each other, but they still remain in full view of the nurse's desk.

Owing to the need for economy in planning, rooms had to be of small dimensions. Glazing of internal partitions is used to give a sense of spaciousness and to minimize visual barriers. Venetian-blinds in windows, roller-blinds incorporated in the design of glazed partitions, and curtains, allow adequate screening for privacy of all parts where open planning was adopted.



View of Ward A, first floor, with nurses' station in the foreground

Metabolic Unit, Hammersmith Hospital

Construction and Finishings

The reinforced concrete structure consists of a frame with a continuous beam on the perimeter at the external face of the building. The ceiling slab is structural and is placed at the bottom side of this beam; the floor slab consists of precast reinforced concrete units at the top of the beam. The space between the structural slab and the precast floor is 2ft 3in in height and forms space for installing and maintaining the extensive services required. External walls are of brick in cavity construction. The second floor walls, where special insulation value had to be obtained, are externally of 3in brick on edge tiled with frost-resisting tiles, and internally of thermolite blocks and lin wood wool slab. There is a cavity between the two wall thicknesses. Internal partitions are of 3in breeze blocks. All facing bricks to the ground floor are dark brown with grey pointing; those in upper structure are of golden-yellow pointed white; tiles on external walls are pale sky-blue and sea-green in a panel at the back

of the balcony. Exposed concrete is painted off-white.

Internally, walls and ceilings are plastered and painted pearl-grey, pale-primrose, cerise, lemon-yellow and lichen-green. Door frames are purple-brown, skirtings platinum-grey. Glazed partitions and doors are in polished sycamore, other wood-work in oak stained black.

Heating and Services

Thermostatically controlled panel heating is installed at ground and first floors. The second floor is served by a ventilating plant, placed on the third floor, for temperature and humidity control. The embedded panel heating and ventilation installation are served by the existing hospital steam supplies. Apart from the normal services the building is equipped with safes for keeping radio-active substances, also with radio-active drainage, fume cupboards with independent intake and extract systems, radio relay service and a fire-alarm system. All runs of pipes and ducts are placed in cavity floors.

assistant architect :

G. Buzuk

structural engineers :

Ove Arup & Partners

quantity surveyors :

C. Sweett & Partners

general contractors :

Hall Beddall & Co. Ltd.

Sub-contractors :

Asphalt Tanking:

Val de Travers Asphalt Paving Co., Ltd.

Acoustic Tiling:

The TenTest Fibre Board Co., Ltd.

Air Conditioning, Heating, Hot Water, Steam & Gas Services:

Troughton & Young, Ltd.

Balustrades and Railings:

George Wright (London), Ltd.

Blinds:

J. Avery & Co., Ltd.

Bricks:

Uxbridge Flint Brick Co., Ltd.

Curtain Tracks:

Thos. French & Sons, Ltd.

Door Furniture:

Lockerbie & Wilkinson, Ltd.

Electrical Installations:

Electrical Installations, Ltd.

Felt Roofing:

Durable Asphalt Co., Ltd.

Formica:

Thos. De La Rue & Co., Ltd.

Lifts:

Bennie Lifts, Ltd.

Manhole Covers:

Bread's Manufacturing Co., Ltd.

Plimberite:

British Plumber, Ltd.

Plumbing—Internal:

Arthur Scull & Son, Ltd.

Radio-Active Safes:

Colcrete, Ltd.

F. Piper & Sons, Ltd.

Sanitary Fittings:

B. Finch & Co., Ltd.

Sliding Door Gear:

E. Hill Aldam & Co., Ltd.

Thermalite:

Thermalite, Ltd.

Tiling:

Carter & Co. (London), Ltd.

Windows:

W. James & Co., Ltd.

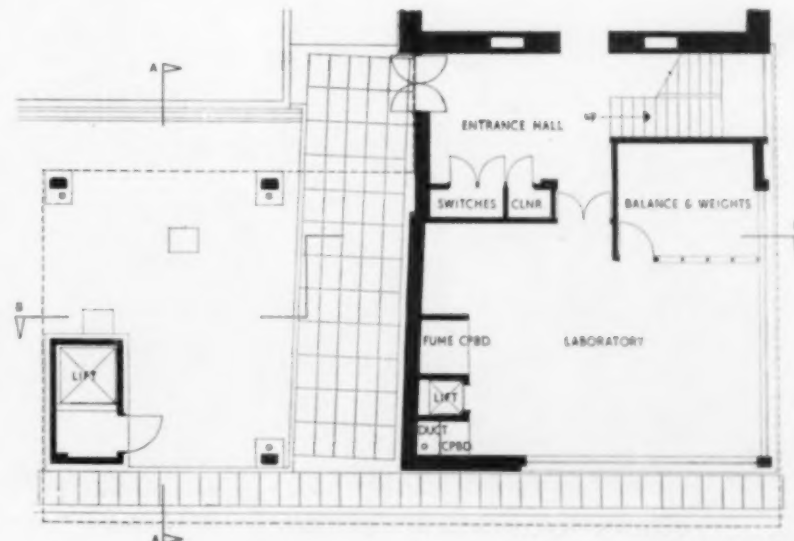
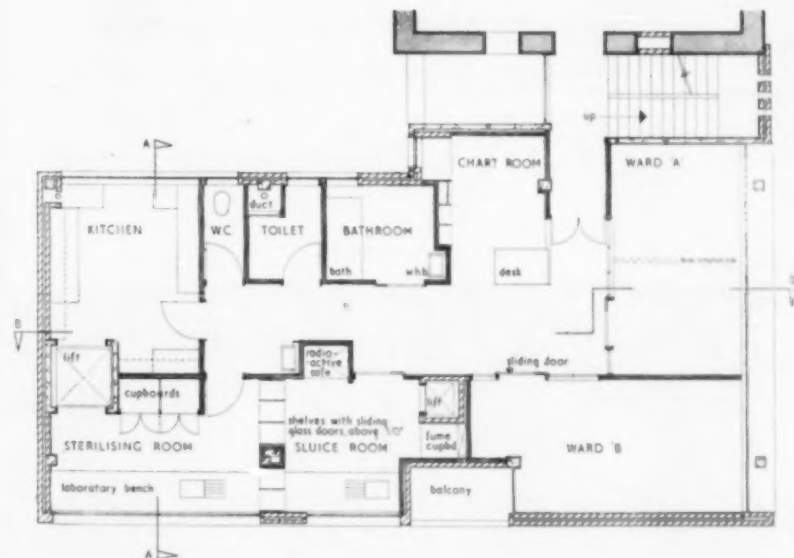
PLANS

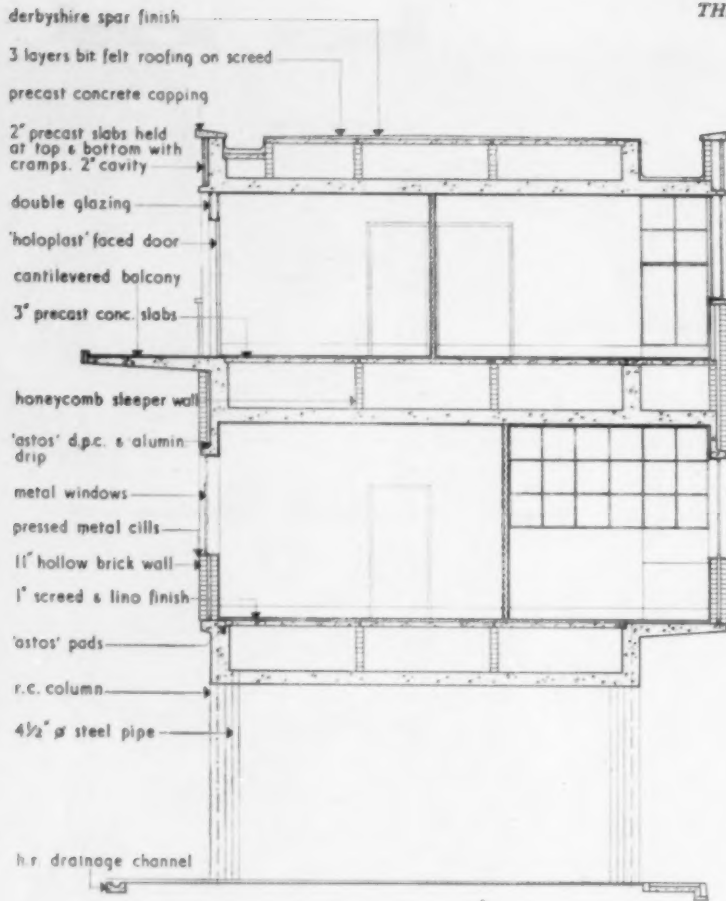
Scale: 1 in = 12 ft

Second Floor

First Floor

Ground Floor



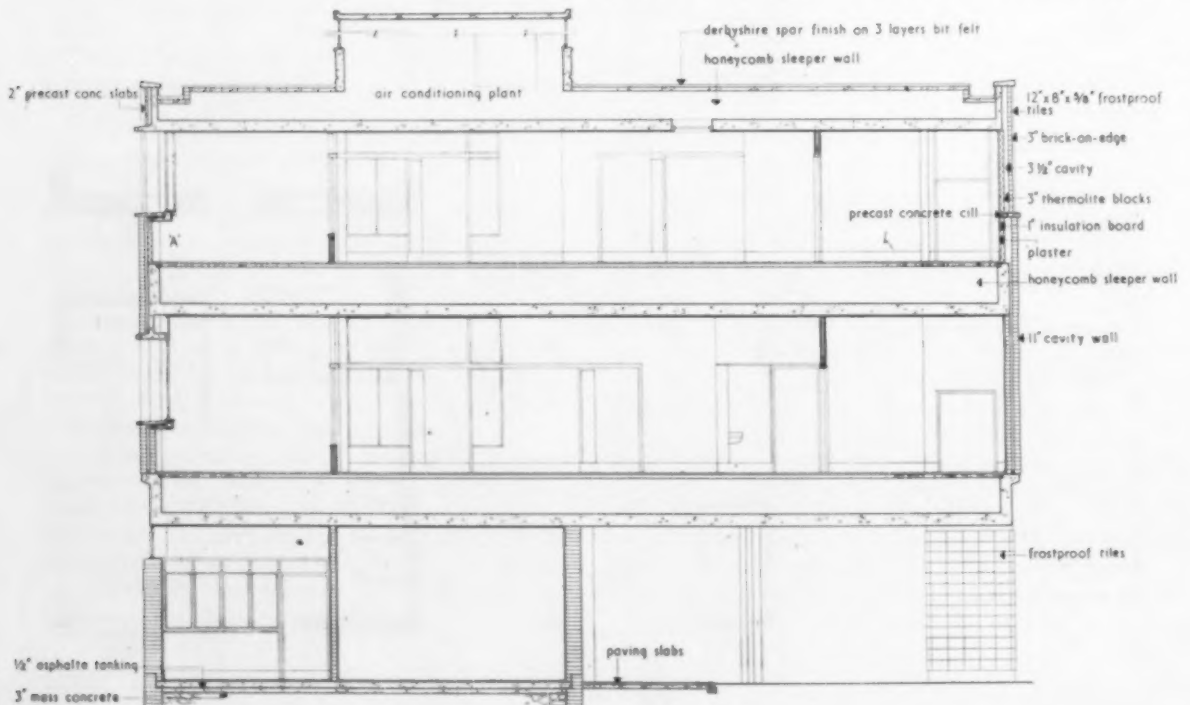


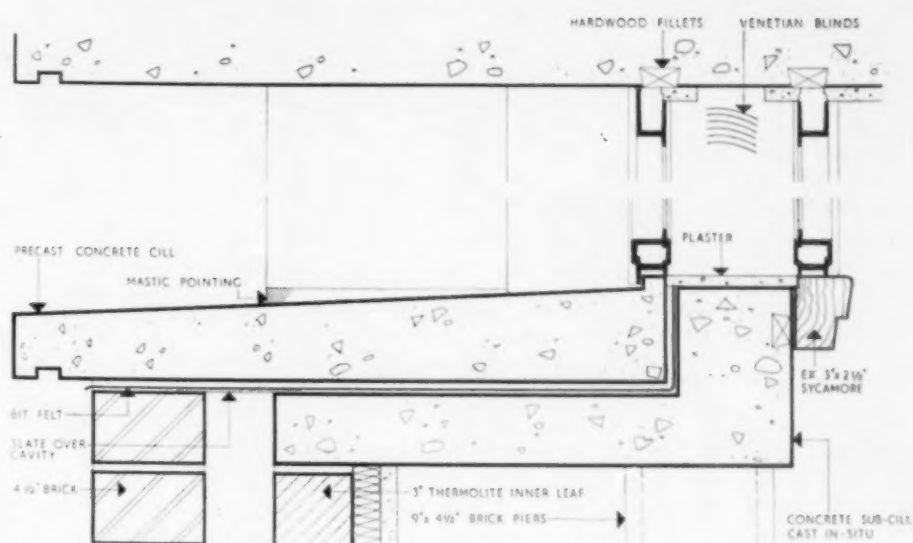
Section: A-A. Scale: 1 in = 8 ft.



Fume cupboard, sluice room

Section: B-B. Scale: 1 in = 10 ft.

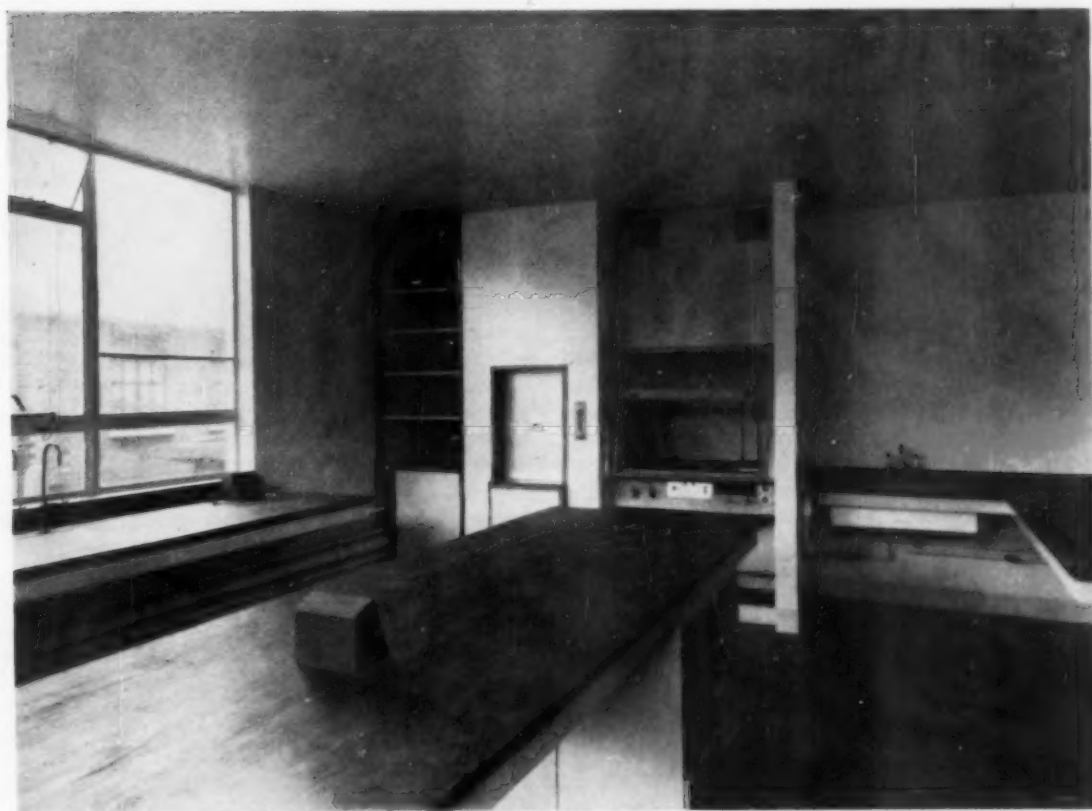




Window detail 'A', Section: B-B. 1/7 F.S.

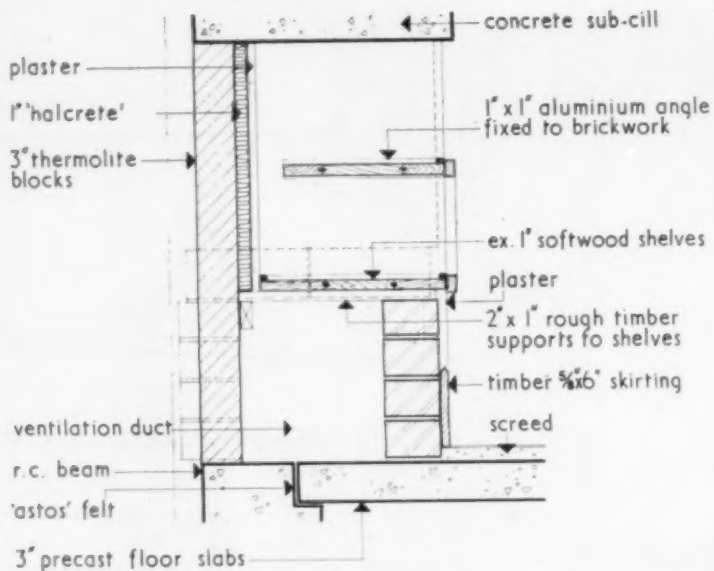
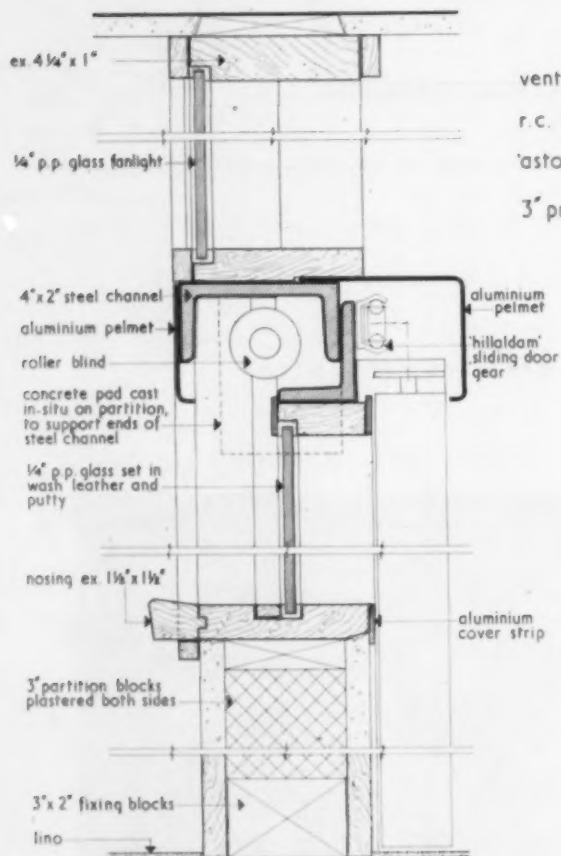
Metabolic Unit, Hammersmith Hospital

Laboratory, ground floor

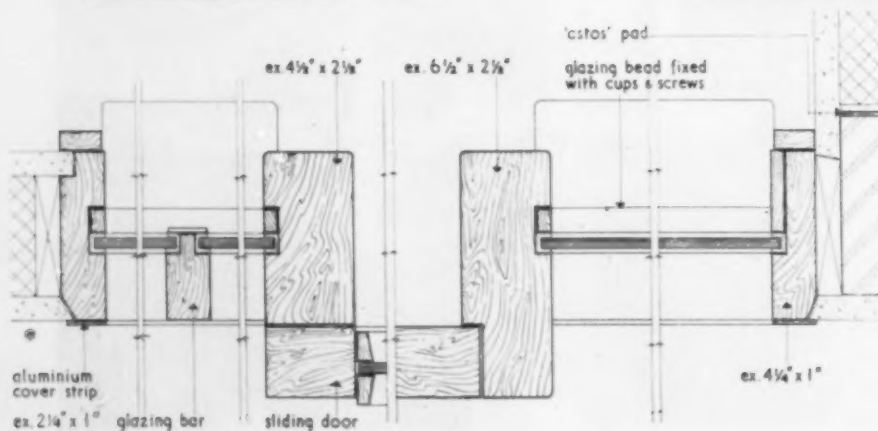


Section through ward cupboard

Scale: 1 in = 12 in

Metabolic Unit,
Hammersmith Hospital

Nurses' Station

Details of glazed
partition, ward "A,"
showing plan of
sliding door.
Scale: 1/4" F.S.



CHURCH OF ST. EDMUND, WEYMOUTH

architects: CRICKMAY & SONS, F.I.R.I.B.A.

THE Church Authorities required a Church to seat 120 people plus a Parish Room. The planning was to be arranged in such a way as to permit extension to both at some future date. The architects were instructed to place the Choir at the rear of the Church in order to give the congregation an intimate view of the Sanctuary and Altar. Also it was considered that the Choir in this position would be able to play a more effective part in aiding the congregation with singing. The total cost of the Church, including fees, was not to exceed £10,500.

The site stands on a main road in the foreground of a housing estate which has been completed since the war. The houses are principally finished in colour washed brick with red Double Roman roofing tiles—and it was desired that the character of the Church should fit in with the estate generally. The Contract price for the whole scheme incorporating Church,

Parish Room and Vestries, including paths, was £9,849.

Construction

The main structural members of the Church are built-up timber portal frames with 5in x 5in deal framing and with ½in external quality plywood webs glued and screwed to the framing on each side. Each complete truss is constructed in two sections and bolted at the head and to special steel shoes at the feet. The roof is formed of wrot deal purlins resting on the trusses with wood rafters covered with rust red, hand-made, sand-faced Pantiles. The underside of the rafters is ceiled with ½in "Celotex"—the purlins being exposed.

External walls are in cavity construction faced externally with random Portland stone with an inner skin of brick. Walls are plastered internally with a wood float finish and left uncoloured. The sand used was carefully selected to give a warm tint to the finish of the plaster.

Clerestory windows are in wax polished teak with

Church of St. Edmund,

Weymouth

centre-pivot-hung opening lights controlled by Arens gear fixed to the face of the trusses. Aisle windows are metal frames with top-hung, open-out hopper lights and the Sanctuary window is formed of Lenscrete glass panels set in a Lenscrete concrete frame.

Floors are in "Accotile" with cork paving to the centre Aisle and to the Sanctuary. Steps and paving to Porch are in artificial doulting stone. Altar rails, head and Clergy Stalls are in oak stained to match the teak and wax polished.

The Parish Room, which is the most likely part of the building to be extended in the first instance, is constructed in standard Orlit pre-cast concrete units on the ground of economy.

Services

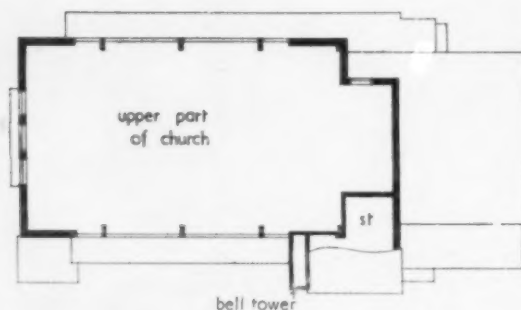
The Church is heated by tubular heaters arranged in banks on either side of the Altar in specially constructed boxes behind the curtains; on the Head stalls to Nave and Choir; and beneath lighting troughs under Clerestory windows in order to stop any down draught from these, and along the walls of the Aisle and at the back of the Choir.

The Nave is lit by four groups of pendant light fittings hung from the purlins and by indirect lighting troughs with fluorescent lighting below the Sanctuary windows. Aisles also have indirect lighting arranged in a part of the same trough with fluorescent tubes. The Sanctuary is lit by concealed spot lights, and indirect lighting is arranged behind the Cross in the Reredos to give a glow of light on to the wall and to silhouette the Cross. The Choir is lit by fluorescent lighting tubes concealed from the Nave by fixing at the back of a beam forming the head of an oak post and beam screen to the Choir recess.

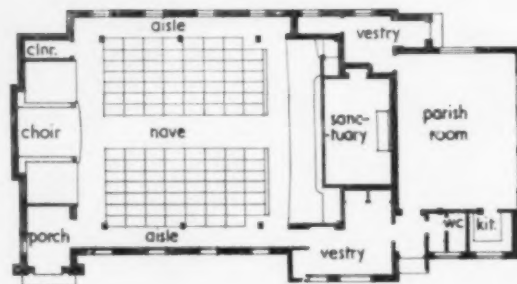
Colours

The building board soffit to the roof of the Church is painted a warm shade of white, the purlins and surround to the Reredos being grey with the trusses painted blue. The underside of light trough on which the tubular heaters are mounted is painted dark red/brown to harmonize with the heaters, and ceiling of Aisles pale green. Floor tiles are of warm mottled brown and mottled black laid in checkerboard pattern, and the cork tiling previously referred to is laid in light and dark tiles arranged in checkerboard pattern to harmonize with the "Accotile" floor. The main ground of the fibrous plaster to Reredos screen is painted terra-cotta with the incised saucers picked out in a pale shade of terra-cotta, the curtains on each side of the screen being grey velvet. The Cross in the Reredos has an ebonized black finish.

Altar rail and Pulpit



PLAN AT UPPER LEVEL



PLAN. Scale: 1 in = 30 ft



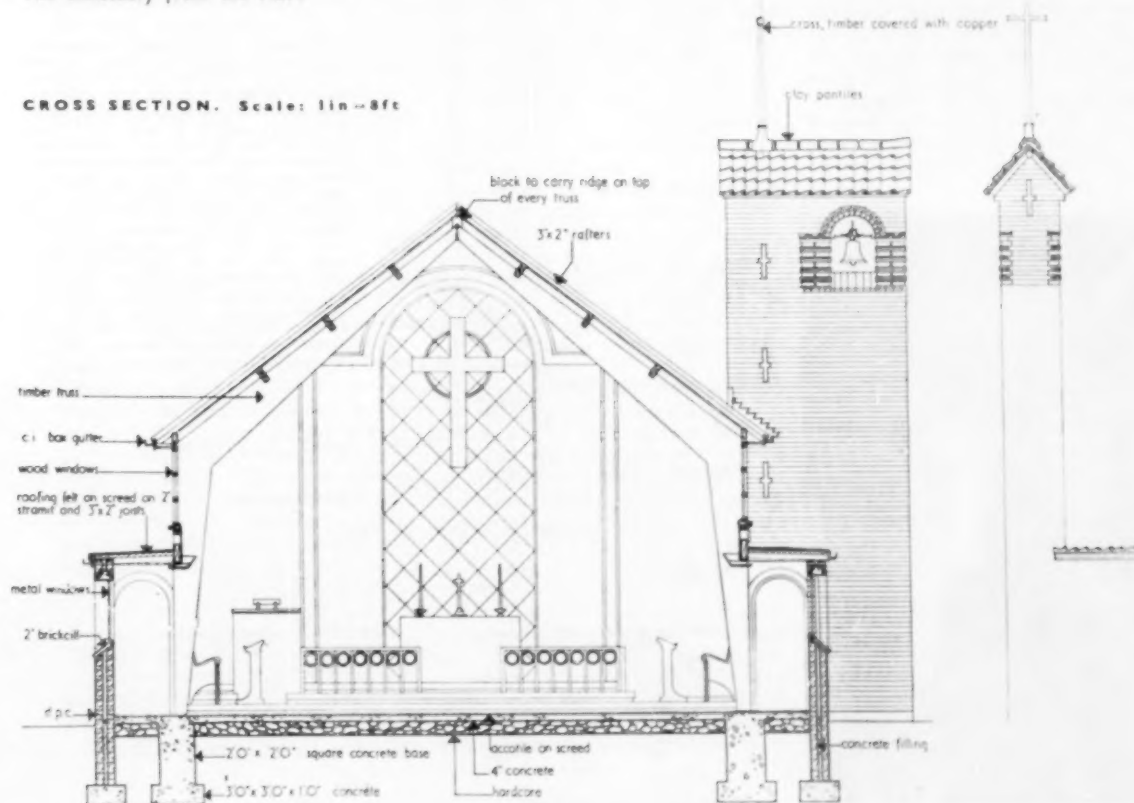
SECTION

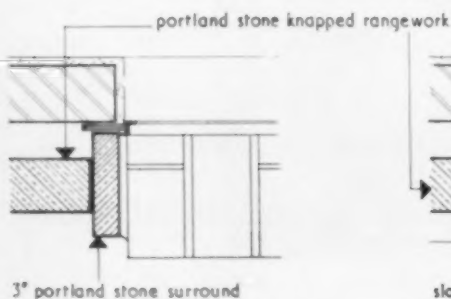
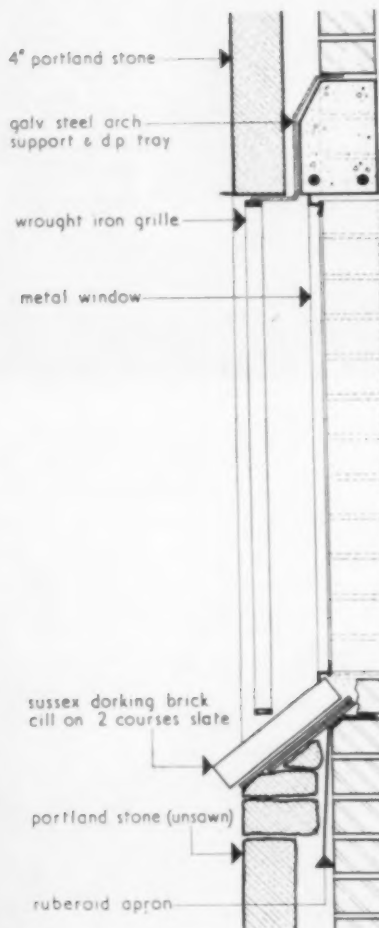
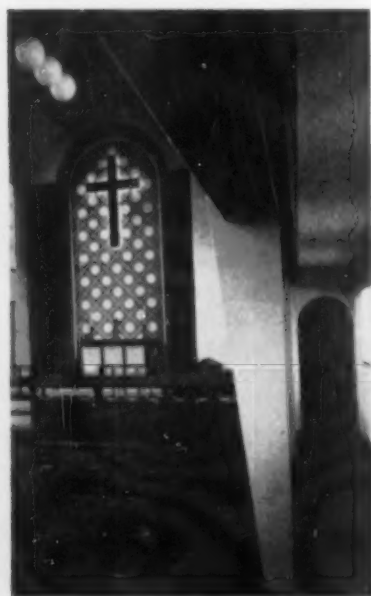
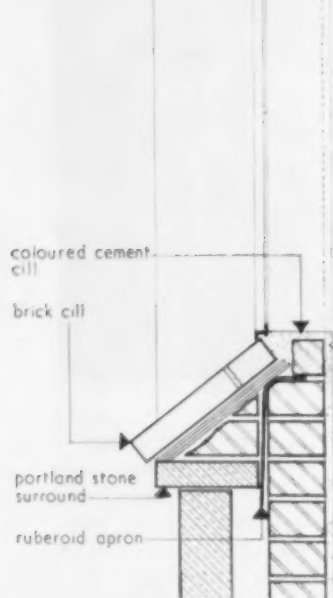
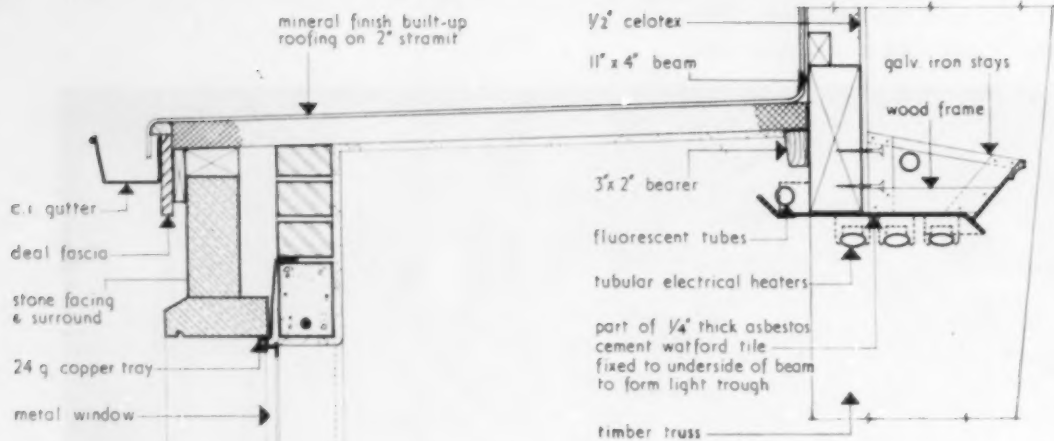




The Sanctuary from the Nave

CROSS SECTION. Scale: 1 in = 8 ft





CONSTRUCTIONAL DETAILS

Scale: 1 in = 1 ft

Church of St. Edmund, Weymouth

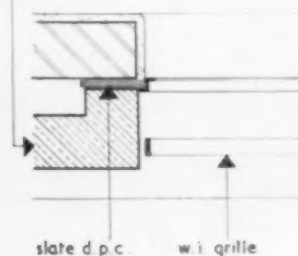
General Contractor :

Theo. Conway Ltd.

Bituminized Roof Covering: Ruberoid Co., Ltd. Cork & "Acotile" Floors: Southern Tiling. Door Furniture and Ironmongery: Parker, Winder & Achurch, Ltd. Electrical Contractor: Davis & Hadley. Fibrous Plaster Reredos: G. Jackson & Sons, Ltd. Flush Doors: F. Hills & Sons, Ltd. Metal Grilles to Choir Vestry, White Metal Rings to Altar Rails, Head Stalls, etc.: J. Carslake, Ltd. Metal Windows and Door Frames: The Crittall Manufacturing Co., Ltd. Paints and Distempers: Hadfields (Merton), Ltd. Portland Stone: The Bath & Portland Stone Firms, Ltd. Pre-cast Concrete and Glass Lenses for Sanctuary Window: Lenscrete, Ltd. Pre-cast Concrete Units: Orlit, Ltd. Pre-cast Doubling Stone: The Wharf Lane Concrete Co., Ltd. Roof Tiling: Roberts Adlard & Co., Ltd. Sanitary Fittings: Kennedy's (Builders' Merchants), Ltd.

LEFT: SECTIONS

BELOW: RELATIVE PLANS



CAPITAL TO START A PRACTICE

"WHAT amount of capital will I need to have in the bank before I can safely set up in practice?"

This is the most difficult question I have been asked to answer for some time. The simple answer is, it all depends. And so it does—depends on so many personal factors that no one answer will fit, with any degree of accuracy, two individuals. There are, however, certain basic features which you must bear in mind before setting up in private practice. I would define "setting up in private practice" as from the date when you embark upon having your own office as opposed to practising from home.

I can only presume that before you erect your brass plate you have certain potential commissions promised. With the restrictions to be overcome and permissions to be obtained it may be a year before any work commences on the site. Dependent upon the scale of the project, it may be a year or two years before the building is completed. In other words, it is at least a year to eighteen months before any fees are received and may be three years before the job is completely executed and you have obtained your final settlement. You may have some smaller jobs which will bring you in lesser amounts—which at this stage of your career are very acceptable both for the ready cash and their introductory value—but I would discard them in your calculations and look upon them as windfalls.

You must be prepared, therefore, to survive for three years without relying upon any capital in the form of fees coming into the office. Do not let this fact deter you from your ideal. Others have done it before you and therefore there is no reason why you should not be able to do so.

I have made a survey of the young architects who have commenced in practice in my area since the war, and find that most have a second occupation in the form of teaching at the local School of Architecture. This provides them with the necessary income to live but I feel this is not a satisfactory way, if you can find an alternative, to commence in practice. My reason for this is that you have to leave your office unattended or in the hands of a junior whilst you fulfil your obligation to the school. You are also not free to make appointments other than at your convenience, instead of at the convenience of your clients. There is the added disadvantage that with this other income your commitments rise accordingly and you will find that you are unable to live without this source of income.

My advice would be—if you can

commence without having to take an additional job, do so.

What capital will you need to live on during the three years? I would suggest you consider the problem over that length of time rather than hope to manage to obtain sufficient fees sooner. It is better to be on the safe side than have to give up your practice and accept a salaried position.

First, calculate your personal commitments. This amount will depend on whether you are single or married, and your mode of living. Only you can answer this question. For calculation purposes let us assume a figure of £500. Unless you use a room in your own house you will require to rent an office, say between £52 and £100, plus rates, cleaning, heating and lighting—another £52 at the minimum. Furniture and equipment (this is capital expenditure but has to be paid for), say £100.

One of the first essentials of an office is that it should be manned when you, as principal, are out. Thus the employment of someone, be it an assistant or a typist, is a necessity. A junior will now require £2 a week and will without doubt ask for an increment as soon as he becomes useful and therefore an asset to the office. On the question of typing, if you do not feel that you have sufficient work to engage a full-time typist I would not advise you to attempt to do the work yourself; your time is too valuable. You can either share a typist with another office or get your typing done at a local bureau. The cost will depend upon the amount of work in hand but I would suggest that you allow, for calculation purposes, a minimum of £1 a week.

There will no doubt be other incidentals which I have omitted but with this modest office you would need capital in the region of £850 to £900 in the first year and in the two subsequent years £750 per annum. In all, therefore, presuming you are able to live on £500, you would require about £2,500 in capital.

If you feel that your business would not be complete without a car you should add at least another £200 to your first year's expenditure. It will, I can assure you, add greatly to your yearly expenditure. If you feel you can manage at least for the first year without a car my advice would be to do so, as there is no greater drain on the pocket.

You may feel that the raising of £2,500 rules out any thought of starting on your own account. You must have had faith in your own ability to succeed ever to have entertained the idea of a practice and if this is the case there is no reason why you should be unable

to find someone who has faith in you to the extent of loaning you capital to that amount.

If one of your parents will come to your aid with an interest-free loan you are fortunate, otherwise it will depend on your own personality and prospects of work if you are to obtain a loan from, say, a solicitor without security other than the prospect of fees from the work you have in hand.

You may think that once you have obtained a loan and become established, your financial worries are over. Finance is a constant problem in a growing practice. Let me explain this by presuming your gross income is £1,500, your outgoings are £800—therefore your profit is £700. Work increases and you have to take on an additional draughtsman at, say, £400. Your outgoings immediately rise to £1,200. To maintain the same profit, gross income has to be increased to £2,200. Thus, as you will readily appreciate, it is during the period of time when it becomes necessary for you to expand your staff that capital becomes really necessary to tide you over one period of more work without proportionately greater profit.

When starting in practice we all dream of a really big commission. The sudden arrival of a large commission can bring in its wake the necessity of a sudden increase in staff with its resultant need for additional capital. When this happened during the war period work was distributed between offices. This was not because of lack of capital but staff. The same principle can be adopted on the grounds of lack of capital but naturally your profit will be lower.

This question of capital, to my mind, divides itself into two problems—the initial outlay and amount you require to live on, and then capital for expansion. As you will readily appreciate, the better the prospects of jobs (even small ones), the less capital you need until your jobs become more numerous and you have to engage staff.

If, therefore, you can, in your early days, leave a proportion of your profit in the business, your problem of capital for expansion will be eased.

I would be the last to try to discourage anyone from commencing in private practice; rather would I commend him for his enterprise when so many are enmeshed by the weekly pay packet. So I hope that you will take heart from these few words of mine on this most difficult and individual subject. If you venture into the realms of a private practice may I wish you well and every success.

M. E. TAYLOR, A.R.I.B.A.



Aerial view

NEW WORKSHOP BLOCK, Kingston-upon-Hull

architect: FREDERICK GIBBERD, C.B.E., F.R.I.B.A., M.T.P.I.

A NEW Technical College has been designed for the Education Department of the Corporation of Kingston-upon-Hull; and the workshop block, which is the first stage, is now under construction.

The new building straddles one end of the site of the Old Queen's Dock, which was built about 1780, and filled in about twenty years ago to form Queen's Garden. This and the other docks in the centre of the City were originally constructed in what was the moat of the old City, and the road called North Walls on one side of this site marks the position of the original City wall.

Layout

The workshop block, a single-storey building with a shell roof, is 312ft long by 192ft wide, and is planned on a 24ft by 24ft grid. It is divided into four blocks by 12ft corridors running the width of the building. The frame consists of a series of north-light bays of reinforced precast concrete members, post-tensioned after erection by the Lee-McCall system. The shell roof is also made up of precast units and each north-light and roof unit together span the 24ft of the grid. The corridors have flat roofs, consisting of reinforced precast concrete slabs, which rest on tubular rollers to allow for expansion and contraction movements of the building.

An entrance wing and temporary main corridor at present take the place of the entrance hall, which will later form

part of the ground floor of the nine-storey main block.

Foundations

Foundations are piled because the subsoil above the boulder clay level is poor, especially the filling within the dock area. Large foundation beams span the dock walls throughout and provide a standard grid of supports for the suspended ground floor, thus assisting considerably in the standardization of its design and construction.

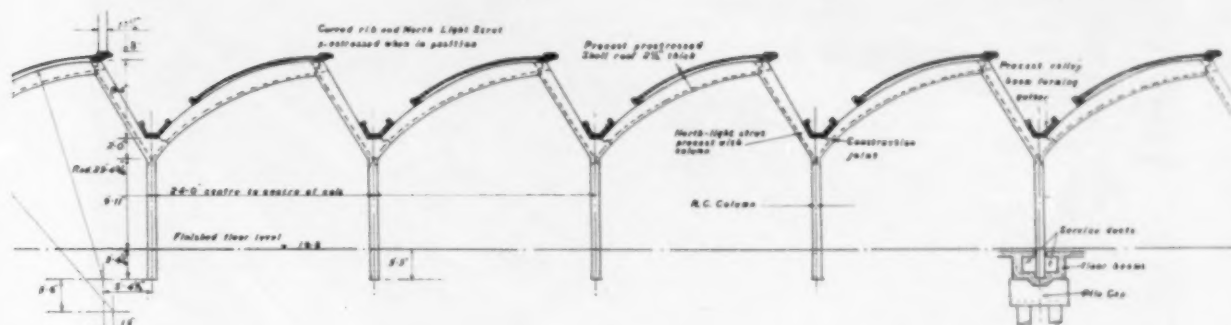
Because of the curve of the dock walls across the site of the building and the nearness of the lock gate and its abutments, there were difficulties in siting these foundations. They had to be independent of the wall because the latter's foundations are above the level of the boulder clay which forms the bearing stratum for the block.

Ground Floor

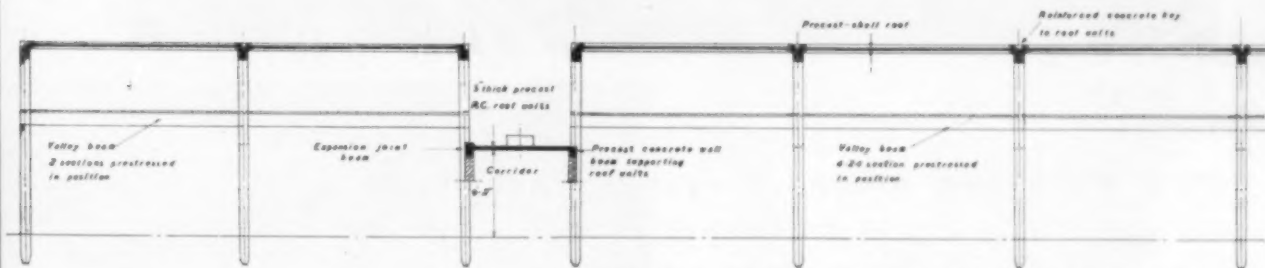
The reinforced concrete suspended ground floor contains a system of main and subsidiary ducts throughout its area, for main services and for as many subsidiary services as could be concealed in this fashion. Both main and subsidiary ducts are so arranged that they form the main beams of the floor construction. They also incorporate fixed-end sockets for the superstructure columns.

Part of the building has a lowered floor to permit the introduction of machinery bases isolated against the transmission of vibration. These are for the Heat Engines

STRUCTURAL DETAILS



PART CROSS SECTION THROUGH WORKSHOPS



PART LONG SECTION SHOWING CORRIDOR EXPANSION JOINT

Technical College

consulting engineers: SCOTT & WILSON, KIRKPATRICK & PARTNERS

Laboratory. The Hydraulics Laboratory floor incorporates a flume for experimental work.

Superstructure

Early and close consultation between the architects, consulting engineers and contractors is clearly important in projects involving precast work, where sequence of erection has an obvious effect on design considerations. In this case, detailed discussions solved many of the erection problems before work started and enabled the contractor to progress, almost from the beginning, at a rate of eight bays of superstructure per cycle of two weeks.

Full-scale stressing and loading tests were carried out on the precast frames and the shell room units at the beginning of the superstructure work.

The Frame

The main frames are built up with the precast units to form eight-bay continuous portal frames. There are only two basic units: (i) a combined column and north-light strut and (ii) the curved rib. The units, which are cast with holes formed by Uni-Tubes, are placed in position by means of Scotch derricks. High-tensile "Macalloy" bars are inserted, the joints are concreted, the bars stressed and finally grouted.

The Gutter Units

The gutter units are precast on the site, pretensioned sufficiently to withstand handling stresses, and are finally post-

tensioned when in position. The Lee-McCall system can be readily adapted to this stressing by stages. These gutter units, when connected to the main frames, make a series of portal frames laterally.

The Roof Units

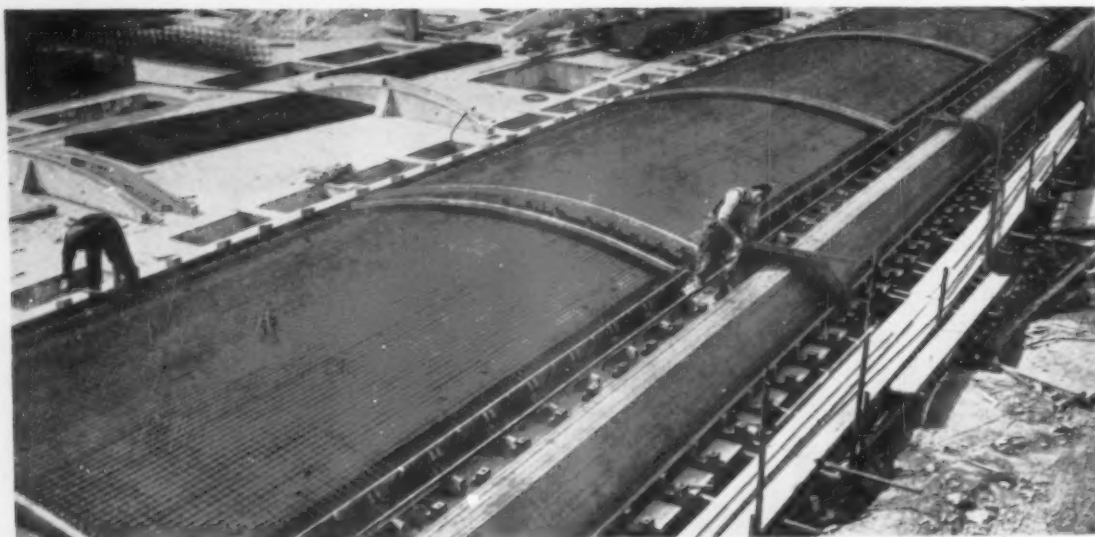
Each unit of the shell roof is 2½ in thick, measures some 16ft x 24ft, spanning in the 24ft direction, and weighs about seven tons. These units are all precast and pretensioned. In view of their size they are being cast on the site, in batches of eight, on a prestressing bed which has been set up in a bay of the previously constructed ground floor. Eight gutter units are cast simultaneously with eight roof units.

The roof units are fixed by laying them on the frames, clamping them down, and placing a filling *in situ* concrete between adjacent units over the frame ribs.

The Prestressing Bed

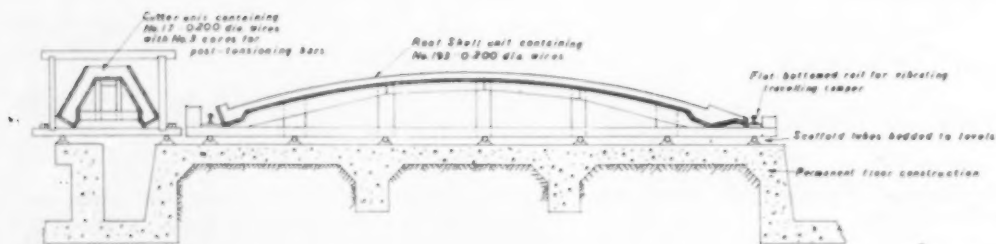
The prestressing bed is over 200ft long and the five-ton jacking head is some 20ft wide. It can be operated uniformly over its full width and the total compressive force is about 450 tons.

To avoid bending moments being induced in the floor, rocker bearings are provided, which transmit the load axially. A rolled-steel joist has been cast in the floor to act as a spreader, and it is well anchored down in order to provide the necessary frictioned resistance to any vertical movement of the plated channel uprights.



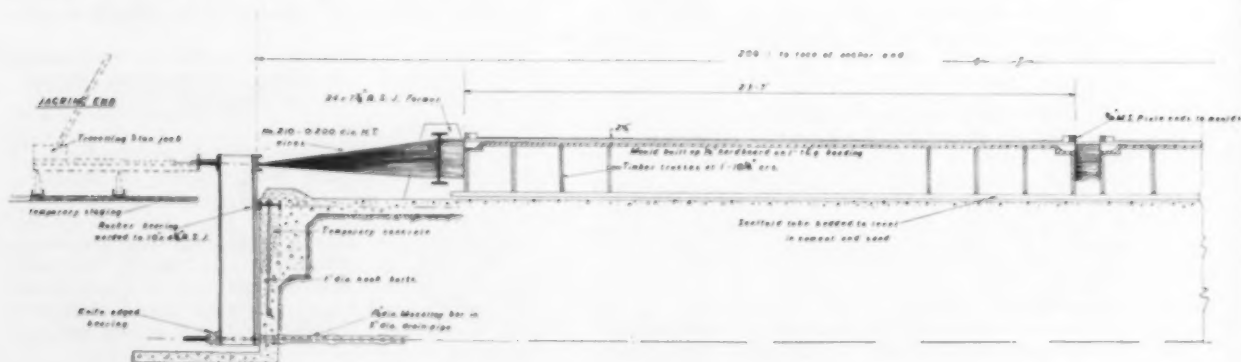
The casting bed

New Workshop Block, Kingston-upon-Hull



SECTION THROUGH THE CASTING BED

PART SECTION THROUGH THE PRESTRESSING BED



The forces exerted by the prestressing wires, which are set approximately 15in above the floor slab, are counter-balanced by "Macalloy" tie-bars which are buried in drain-pipes in the ground 5ft below the floor slab. The pipes permit freedom of movement of the tie-bars, which can be reclaimed on completion.

The wires are stressed in pairs by the travelling jack, which has a compensating device in the gripping head; the load is simultaneously taken up on the "Macalloy" bars with a Lee-McCall jack, in order to ensure that the plated channel uprights remain vertical.

To de-tension, the loads on the "Macalloy" tie-bars are gradually released and the entire head arrangement is allowed to pivot about the rocker bearings until all the load is let off. To minimize the risk of damage to the threaded end of the "Macalloy" tie-bars, knife-edge bearings have been provided behind the nuts.

The timber moulds rest on steel scaffold tubing bedded in mortar. This facilitates levelling up and also enables the moulds to slide freely during de-tensioning. The ends of the moulds of the roof units are steel plates gig-drilled for the one hundred and ninety-three 0.2in dia. high-tensile

steel wires. The rolled-steel joist formers are similarly drilled. They span the full width of the bed, in order to avoid the vertical reactions of the sloping wires transmitting bending moments to the floor slab.

The Concrete

A high quality concrete is required, and this is obtained by careful site control. The concrete mix is 1:1:2, with a water/cement ratio of 0.34. Washed Trent river sand and gravel are used, and with rapid-hardening cement 5,000 lb/sq in concrete is obtained in two days, enabling de-tensioning to take place. It is placed, by derrick, from bottom-dumping skips, and compacted with the aid of a pneumatically-vibrated, travelling tamper, shaped to the contour of the roof unit.

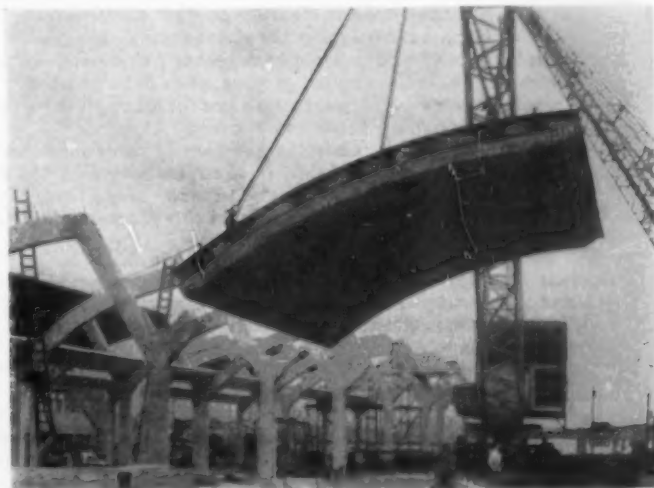
Transporting the Units

One of two cranes is used to remove the units and serve the second crane at work on the superstructure. The units are lifted in a frame which consists of two shaped channels, one at each end of the unit, welded tubes connecting the channels and a pyramid sling. This frame is fixed to bolts cast in the concrete shell and later burnt off.



Erecting the precast frames and gutter units. Reinforcement is left projecting above the rib to be bonded in with the precast roof units after they have been placed in position

One of the precast, pretensioned roof units being lifted into position by a movable derrick. One of the shaped lifting channels can be seen fitted to the edge of the unit



Quantity Surveyors:

John Watson & Carter

General Contractors:

William Moss & Sons, Ltd.

Piling: *Holmpress Piles Ltd.*

Precast Frames: *Trent Concrete Ltd.*

Prestressing Bars: *McCall's Macalloy Ltd.*

Prestressing Wires: *Richard Johnson
and Nephew Ltd.*

NEW RESEARCH IN ARCHITECTURE

comments on some of the information contained in U.N. BULLETIN 8: Housing and Town and Country Planning

THE crux of research in the building industry just now is not discovery but the best use of what has been discovered."

So writes Dr. Bronowski in a world survey of research in housing and town and country planning, published by the United Nations.

There are a great many changes occurring in building practice, he continues, but they are isolated and haphazard. They have not yet been unified, assembled into a new sequence of operations to replace the old.

The full impact of them cannot, in consequence, be felt.

Nevertheless a great deal has happened, not only in connection with materials, stability, etc., which have

mental changes in thought may be involved.

Can this research be described?

Several contributors to the survey have attempted to do so.

There are considerable individual differences between one person and another, writes André Marini, Director of the Centre Scientifique et Technique du Batiment of France. Average values can be a sterile source of technical conclusions. This is a simple fact which is probably the most important, and the most pregnant in practical consequences, of all so far as technique is concerned.

Instead of one average solution, there may be several possibilities.

M. Marini gives an example in con-

they must have open coal fires. More exact knowledge about the situation containing several alternatives may supply the threshold to previously unseen solutions.

It may have been deceptive to study environmental conditions for such a long period in terms of comfort and not in terms of hygiene. Comfort has so many undertones and overtones of meaning. It may be dependent on acquired experience and ideas formed by the operation of a wide range of factors, especially education and social habits. Hygiene, on the other hand, is a requirement of a physiological and absolute nature, failure to satisfy which is bound to have a detrimental effect on health.

Researchers may have found that in-

HOW CAN WE REALIZE THE KNOWLEDGE OF MANY IN ONE BUILDING?

THIS question is asked by Giertz and van Ettinger in the survey. On a small scale the teamwork necessary may only include the architect, a technical specialist and a functional specialist.

Responsibility for leadership will continue to rest on the architect, since it will be his task to give with imagination and intuition external form to the mass of social, economic and technical requirements to which other members of the team must give concrete expression.

Alternatively, it is also possible to direct the whole transmission of knowledge towards an individual architect alone. The question then is whether his creative capacities may not be crippled. At least if some degree of flexibility could be provided in buildings, even after erection, they could be changed where necessary.

At its most complete development, the full cycle of knowledge which should be incorporated in a building programme is as follows:

- The prime movers in drawing up national building programmes are the social economist and the statistician, in conjunction with numerous other experts.
- Then follows the town and country planner, again in conjunction with other experts, who in a national, regional and urban context arrives at the correct arrangement of the groups of buildings and thus tries to lay the basis for living, working, transportation and recreation.
- Next is the management expert, backed by specialists such as doctors, educators, psychologists, production specialists, etc., who try to give a responsible functional basis to the future constructional work.
- The architect has already co-operated in formulating the programme of requirements. He must now design the building through his creative capacity, ensuring that his design receives a responsible technical and economic basis through proper choice of materials, structural methods and installations. For this latter task he seeks the co-operation of consultant engineers.
- Building materials are brought together from many factories where the result of research on many technical and technological problems has been applied. The important work of the contractors now begins. Advisers on organization are increasingly involved and the value of good technical education and special training becomes apparent.
- Once the building is ready the question of its administration arises. Specialist knowledge in this field is also increasingly required. In the same way that the depreciation funds must be accumulated now to pay for new buildings, the experience gained from the completed buildings should flow back into the storehouse of knowledge. From this future building must be created and improved.

been subjects for research for a long period, but in a comparatively new area—the development of an understanding of the nature of human needs.

Research work is making it possible to obtain a more accurate insight into needs.

This insight must inevitably influence architecture. It must demand a response even though quite funda-

nection with heating. When asked whether they prefer individual or collective heating, people may say that they must have the former.

Put in this form the question has implied an either/or condition. But in reality many people may mean that they prefer a system which gives them control of their heating and, especially, their expenditure. Others may mean

sistence on a certain standard of hygiene might have been of great assistance in establishing a critical basis from which to deal with the larger problem.

It is not easy, writes M. Marini, to isolate the hygiene of the heating environment from other factors affecting health, but this very difficulty is an additional reason for tackling the prob-

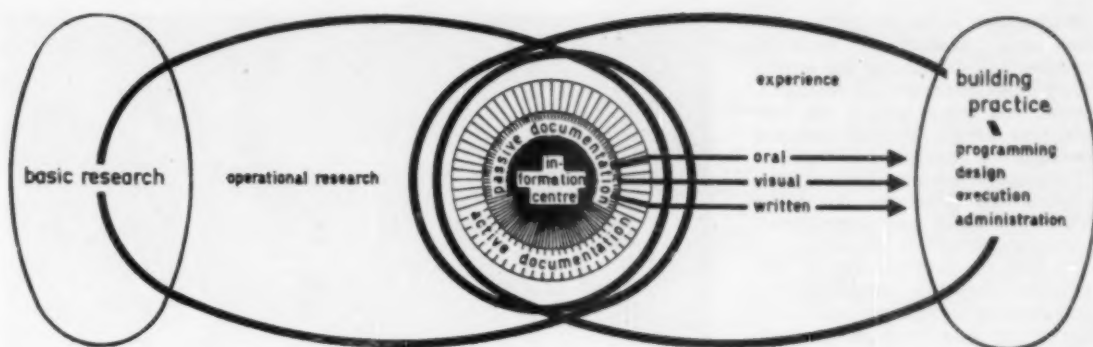


Fig. 1

Design, Research, Documentation

lem. There are inadequate working tools for this type of study and it is not always able to free itself from the tradition of what may be termed "physical" research.

If buildings are to play their part of making smoother the life and work of the human beings who have to live in them, continual attention must be given to the problem of their actual function.

J. van Ettinger of Bouwcentrum and Ratiobouw, Netherlands, and L. M. Giertz (Sweden) of the International Council for Building Research, Studies and Documentation (C.I.B.) draw attention to the need for two-way transmission of knowledge as a means of checking and correcting the many possible errors and false steps.

In transmitting knowledge, they write, three aspects must be borne in mind: (a) one must have at one's disposal certain knowledge, skill and experience, (b) the knowledge, etc., must be distributed in such a way as to be available where it is necessary, and (c) the recipient must be prepared to use this knowledge in the correct manner, and, moreover, *be willing, as sender, to make available certain data or experience*.

The last statement is most important because it forms the trigger for the initiation of corrective action.

It plays the same rôle that applause has in the theatre, of giving a response to the otherwise isolated figures on the stage. Applause in the theatre is an essential requirement. It helps to close a gap. Giertz and van Ettinger wish to find the counterpart to applause which might help to bridge the gap which exists between theory and practice in architecture.

For example, to take one area in which the process of the transmission of knowledge operates, men engaged in study know far too little of the practical work and of the needs which are felt in practice. The practical man, on the other hand, is not sufficiently aware

of the assistance the theoretical man might be able to give him.

They must influence each other in two directions so that the work of the one matches the achievements, requirements and possibilities of the other.

The implication therefore is that research must be brought closer to the realities of:

- 1, The demands of "users" of buildings in one direction; and
- 2, The building practitioners in the other direction.

Also research is needed for the period after a new building is occupied to ease its working efficiency and to pass on the experience gained by it to others.

In the diagram, fig. 1 (provided in the survey by Giertz and van Ettinger) M. Marini is concerned with the left hand area—Basic Research—in which the building up of scientific knowledge begins, the collection of operational statistics on testing grounds and in normal life.

Giertz and van Ettinger place emphasis on the central area—Information Centre—including the preparation for the transmitting of knowledge, both from basic research to building practice and from building practice back to basic research.

Since much of this cannot take place until a building is erected, the architect is actively involved. More than this, however, a building which is to be related in this way to so many requirements must have a certain amount of flexibility and freedom for movement.

An experiment made in Norway is described by Professor Odd Brochmann. About 200 flats were selected, in Oslo, within the category of low-cost dwellings. By means of direct interview, researchers were to find out (a) the degree of technical function of the buildings (heating, insulation, etc.), (b) how the home functioned as a place to work in,

especially with regard to the housewife, and (c) in what state was the welfare and happiness of the family.

Investigators avoided typically overcrowded homes and took no interest in flats inhabited by bachelors. All their questions were willingly answered and strict care was exercised to avoid giving a bias to the framing of questions.

A conclusion of this investigation was that to counteract widespread misuse of space, planning would have to be "fool-proof"—that is, designed in such a way that it did not tempt tenants to make arrangements which were opposite to the aims of the planners.

This idea is based on the establishment of average values. Professor Brochmann confesses that in a later investigation the claims of "fool-proof" planning were disproved. It had produced flats which followed too set a pattern, which had the effect of a strait jacket on many of the occupants. It had to be replaced by a new and more elastic aim.

Investigators of the sort just described are trying to get "inside the lives" of the people under observation. An attitude survey cannot fail to have this weakness. Why not give the occupants themselves a means of establishing what most suits them? An American example in the survey suggests how this might be done.

A single-storey house has been sponsored by the University of Illinois Small Homes Council in which the structure and roof plate only are erected, the roof being immediately provided with an uninterrupted ceiling finish of plywood sheets. (Fig. 2.)

Outside walls, internal screens, storage elements, kitchen and bathroom units can then be placed in any position, and a number of tests have been made in which the same family has been able to try different spatial arrangements.

But why was it thought necessary to select on a "good design" basis the furniture and fittings for the house? Surely this would give a feeling of control and bring with it the very restriction that the movable enclosure elements were attempting to dispel.

Professor Theodore Larson, who includes this house in his North African Survey, writes that it suggests a promising line of development.

He calls for a programme of new research taking in a wide range of environmental studies and tests showing not only what houses do to people but how housing as environment takes in the whole community—schools, shops, hospitals, factories, playgrounds and everything else that constitutes family and individual living.

The social structure of a city and the psychological and material elements influencing the satisfaction of human needs in the city are discussed in the survey by E. Parent, an architect and town planner and member of the "Equerre" Group of Belgium.

M. Parent emphasizes the need for much more research into this problem, particularly to check the unbalanced growth of urban and community facilities.

Social contact is a necessity for both the townsman and for the countryman. In large cities the individual appears to suffer from isolation, lack of contact with families other than his own. In the country, rural life frequently becomes impoverished and unbalanced by the consequences of the continual drift from land to city.

These forces lead to the isolation of



Fig. 2. The sheltering component is fixed. Ceiling finish: plywood sheeting.

the individual. How can this be prevented? M. Parent calls on the background of C.I.A.M.

What has been said in the survey by others of the necessity for flexibility to allow for two-way communication and possible change after construction must also apply to cities as well as individual buildings. The 8th C.I.A.M. in 1951 proposed a means for achieving this, the idea of "hearts," varied in size and diverse in character, placed wherever they can function as a vitalizing force both in towns and in the country. The essential of the "heart" is that it remains a spontaneous product of a way of social life.

If the "heart" of a small community is to be properly balanced, it must always be in close contact with housing. The residential unit is the basic constituent of the city. The builder should substitute this concept for that of the individual dwelling, which considered by itself can solve only a few of the problems of housing.

This is necessarily only a small area of the information contained in Bulletin 8. Much has been left out which is of great value. The Bulletin is available from H.M. Stationery Office, P.O. Box 569, London, S.E.1, and at all H.M.S.O. shops.

GEOFFREY HOLROYD

Retention Moneys on Building and Civil Engineering Contracts: Working Party Report

THE report of the Ministry of Works Working Party on Retention Moneys on Building and Civil Engineering Contracts is the result of two years deliberations. The committee was composed of four senior members of the staff of the Ministry of Works and the chief surveyor to the Admiralty. Its purpose was to investigate the possibility of bonds or guarantees replacing the present system of retentions in contracts, as applied in the C.C.C./Wks/1 "General Conditions of Government Contracts for Building and Civil Engineering Works," and the Ministry of Transport "Standard Conditions of Contract for Road and Bridge Works." The retentions clauses in these contracts have their parallel in the other Standard Forms of Contract, such as the R.I.B.A. form, and the conclusions of the working party are therefore of general interest.

The purpose of Retention Clauses in contracts is to insure the employer against the contractor's default before the completion of the work. A proportion of all payments which may fall due to the contractor as interim payments is withheld in order to build up a retention fund. If the contractor defaults, the employer is bound to incur extra expense in having the work completed, and the retention fund is intended to cover this extra expense. In addition, after the works have been completed defects may be discovered in the works, and the cost of making good these defects can be deducted from the retention fund. In fact the retention fund exemplifies the general proposition that since building contracts are "entire" contracts, the contractor is not entitled to be paid in full until the contract works are complete. On the other hand the contractor expects some payment

from time to time as the work proceeds, as otherwise all his working funds may be locked up until the building is complete. The problem therefore is to evolve a compromise which will allow for the payment of current sums to the contractor, less a deduction for the retention fund which will be sufficient to safeguard the employer. The usual practice in all contracts is to provide that the retention fund deductions shall be a fairly high percentage, but that after a certain limit has been reached they shall no longer be payable. The practical result is that a sum of money, varying in size according to the value of the contract, is locked up until a final certificate has been granted and the defects liability period has come to an end.

In a perfect world no doubt final certificates would always be granted

[Continued on page 25]

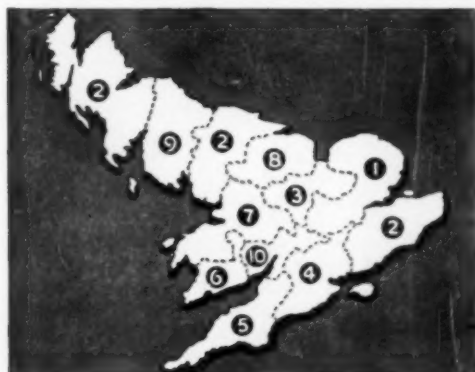
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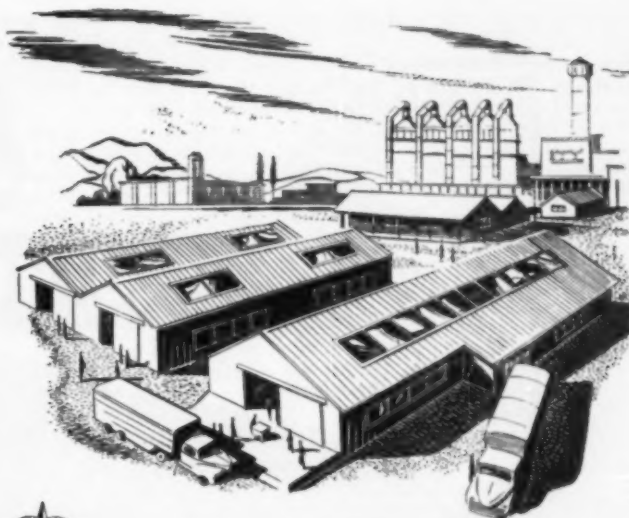
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and payments made to the contractor as soon as the defects liability period had elapsed. In fact neither the R.I.B.A. form of contract nor the C.C.C./Wks/1 form of contract specify a date by which a final certificate must be given. Interim certificates must be granted at certain stages and payment made against them, but the only indication of the time for granting the final certificate is that it is to be made after the expiration of the defects liability period, or after the defects have been made good whichever is the later. The result in many cases, and particularly, so one understands, in contracts with Government Departments, is that the contractor may have to wait for months and often years until the quantity surveyors for the employer have completed their final measurements, and so enabled the architect or supervising officer to grant a final certificate. Not unnaturally there have been complaints, and the working party was set up to investigate the position. In particular it set itself the task of discovering whether or not an effective substitute could be found for the present system.

The working party considered whether a form of insurance cover could replace the retention fund and looked first at what are known as "Performance Bonds." These are insurance policies taken out by contractors which provide for payment to the employer of a sum of money in the event of the contractor's default. They were considered undesirable mainly because the introduction of a third party, in the shape of a bank or insurance company, to a dispute as to completion of the work would only complicate matters. A second fault in the eyes of the working party was that the premium payable would vary with the experience of the firm of contractors, and so handicap new entrants to the industry. These objections also applied to maintenance guarantee bonds which are insurance policies designed to cover the employer against the contractor's failure to remedy defects during the defects liability period. Finally the working party considered trade associations bonds, which are guarantees by a trade association of the quality of the work done by their members. These are only popular among specialist trades, and the limit placed on the amount of the guarantee is not attractive to employers. All these types of bond or guarantee are capable of being of some assistance to the contractor, but the cost of insurance premiums will eventually increase the cost of the building works to the employer.

A subsidiary matter which was

brought to the notice of the working party, was the way in which subcontractors are affected by the delay in payment of retention moneys to the main contractor. Strong criticism was made of the way in which mismanagement on the part of employer or contractor can lead to delay in completion of works and the grant of a final certificate; and it was suggested that when the level of retention moneys is fixed in any contract, the probability of delay in completion should be borne in mind. In fact what is needed, so far as subcontractors are concerned, is a method such as is found in Clause 21 (d) of the R.I.B.A. contract, by which they can be paid in full if the architect desires, without having to wait for the grant of a final certificate to the main contractor.

The conclusions of the working party as to the value of bonds and guarantees as substitutes for retention funds have already been indicated. In addition the working party suggests that in all cases the retention fund should be at the lowest possible level, and that all contracts should be planned so as to avoid delays, and to ensure the early release of money due to subcontractors. Finally it is suggested that contractor and employer should pull together in an effort to obtain prompt and realistic valuation of work done and that final settlement of contractor's claims should be made at the earliest possible moment.

The report is a realistic appraisal of a difficult situation and its conclusions are eminently reasonable. The only question is what notice will be taken of them. Government departments have always been, and no doubt always will be, a little slower to act than private firms. No one can complain of a little delay and no one would suggest that contractors are always blameless. Time and again, however, one hears of Government contracts where the defects liability period ended long ago, but no final settlement is in sight. No contractor wants to acquire the reputation of being difficult in dealing with people whom he hopes to meet again on future contracts; and where no date is laid down in the contract for the grant of a final certificate there is little inducement for the employer to hurry. One would like to think that, as a result of the report, the Government departments concerned will increase the size of their survey departments, and attempt to make delay over payments an exception rather than the rule. If this were to happen no one would think the present system of retentions unreasonable, but will it?

GILES BEST

TIMBER NOTES

Already over a third of the timber which will be used in 1955 has been bought. Prices have kept to the new high levels reached in November, with a tendency to rise still higher in Canadian timbers, where increasing shipping freight rates are upsetting the market.

Some idea of latest buying can be obtained from the offers made on the British softwood market by the Russians, Poles and Czechs—all their offers being over-subscribed. The Russian Export Agency issued stocknotes covering almost 100,000 standards of softwood, mainly from Archangel and the Kara Sea, redwood prices being based on £92 a standard for 7in unsorted d.b., c.i.f. All the Russian prices were c.i.f., and the following will give some idea of the range: unsorted redwood boards from £104 a standard for 7in up to £131 a standard for 11in; 7in redwood fourths £82 a standard; 7in unsorted whitewood £82 10s a standard; £87 10s for unsorted 7in boards; and £77 a standard for fourths.

Poland offered 14,000 standards, much of it not to arrive before next July. Prices were £89 a standard for 7in unsorted redwood d.b., with £10 higher for boards and £10 lower for fifths. Whitewood unsorted was £80 10s a standard, with an extra £4 for boards and a reduction of £5 for fifths.

Czechoslovak offers totalled 10,000 standards, the whitewood 7in being £79 10s a standard.

With high prices being obtained in the unsorted qualities so much sought for joinery work, some of the lower grades are gaining in price. Thus sixths have increased several pounds a standard of late. Present softwood selling prices in this country do not cover the costs quoted in this article, and the building trade may confidently expect prices to rise between now and the spring, when the first of the new shipments will be arriving.

Canadian shipments, so much used for their long lengths suited to the building trade, are fetching higher prices, merchantable Douglas fir being up to £86 a standard and hemlock about £4 cheaper. Spruce is selling at £78 a standard.

Most of the hardwood diverted to Continental ports during the dock strike has now been brought back to Britain, with a few extra charges on to the bill. Hardwood supplies are definitely more difficult, and prices all round are stronger. An Anglo-U.S. effort is being made to release American oak from import controls, and rumours are circulating that such a freedom may be seen early in 1955.

Hardboards and insulation boards are being bought heavily now that they are freed from quota controls. The importers are forecasting a small price rise within the next month or two, for many of the shippers are already asking higher prices.



Full Technological Certificates in Building

An address, given by Mr. HARVEY G. FROST, O.B.E., President-elect of the National Federation of Building Trades Employers, at a recent meeting of the Building Teachers' Conference held at East Ham Technical College. It is concerned with proposals regarding full technological certificates in building craft subjects which are contained in an interim report prepared by a Sub-Committee of the City and Guilds of London Institute's Consultative Committee for Building Subjects. Mr. Frost is the chairman of this Sub-Committee. The interim report is still under discussion by the Consultative Committee and by other committees of the Institute, so that it cannot yet be regarded as representing formally adopted Institute policy.

THE setting up of our National Joint Apprenticeship Scheme in 1945 and the very rapid development and expansion of technical education that has taken place in the post-war years has made it essential that we should first get a clear picture of what we are aiming at and then keep our training schemes under constant review, to see if they are achieving these aims in the best manner possible.

It was in an endeavour to make some contribution towards the attainment of these two objectives that the Consultative Committee for Building Subjects of the City and Guilds of London Institute was set up about two years ago.

What is it that we are aiming at? In the limited periods during which these young lives are under our care and guidance, it is our duty to encourage them to take the utmost advantage of the facilities offered to develop their latent talents to the full, each according to his ability. By our teaching and example we should stimulate them to the enjoyment of that fuller and freer life which can only come with a wider understanding of the world around them and of their place in the scheme of things.

This, to my mind, should be our first objective. The second, which will largely follow, is that we should see to it that the technical instruction given in our schools and colleges matches up to the needs of industry and fits the apprentice in the best manner possible for the actual job which he is going to have to do when he has completed his training.

For a proper appreciation of the problems involved in striving to reach these objectives, we should consider first the material which we have to handle and, second, the structure of the industry for which we are trying to fit this material. Under our present educational system, any child showing an aptitude for academic studies is weeded out at age 11 and placed in the grammar school stream, from which we are able to recruit scarcely any craft apprentices. We thus have to deal mainly with boys whose talents are considered to lie rather in the hand than in the head. Moreover, with full employment, there is very keen competition among all industries for school leavers from the secondary modern and secondary technical schools and, in this competition, I am afraid that for various reasons the building industry does not come by any means at the top of the list.

We are thus under a considerable handicap by comparison with pre-war days, when many lads of keen intelligence had little chance of getting a place in a grammar school and when varying degrees of unemployment made it possible for employers to select apprentices with greater freedom.

Further, with the development of our National Joint Apprenticeship Scheme, and in line with national educational policy, the numbers for which we have to cater show a very great expansion and include widely varying grades of intelligence and interest.

So much for the material which we have to handle. Now may we look for a moment at the structure of the industry for which we are preparing this material? An important point is that the building industry is not merely composed of a handful of large firms of national repute, and a large number of small firms doing mostly maintenance and jobbing work. There is also a vast number of medium-sized firms. The larger firms employing 1,000 or more operatives only employ about 6 per cent of our craftsmen and most of these individually only for the duration of a

single contract. Over 70 per cent of our craftsmen are working for employers employing less than 100 men, and more than half of these for employers employing less than 20 men.

The pattern of employment on the administrative or managerial side of the larger firms cannot, therefore, be regarded as in any way typical of the general pattern of the industry. As the size of the firm gets smaller, so the functions of the various administrative and managerial departments tend to get merged until, at the extreme end, all functions are concentrated in a single individual, the builder himself.

The building industry, together with civil engineering, employs nearly ten per cent of our total male working population in this country, and it has been estimated that something like one in every ten of these is engaged in some sort of managerial or administrative capacity. The products of our universities and full-time technical colleges are nothing like sufficient to fill all these posts, and it is from the ranks of craftsmen trained by way of apprenticeship that we must inevitably, and are indeed glad to, recruit to fill some of these positions.

In the design of our courses for our craft apprentices, therefore, this is something which we should have in mind. We must give as much opportunity as possible for the cream to rise to the top, and these brighter students must be given some opportunity during their apprenticeship training of making a start, at least, upon those further studies which will be necessary later to fit them for positions of greater responsibility. At the same time it is important to remember that the majority of our craft apprentices will never rise to being more than good craftsmen and it is training to make them just this that is of paramount importance. Whilst we should encourage every recruit in our army to feel that he may have a marshal's baton in his knapsack, we do not want, nor are we likely to get, an army of generals.

The extra keen and intelligent lad who has ambition and can rise to positions of responsibility can generally be reckoned to be fairly capable of looking after himself these days. It is the larger masses toiling in the rear who really need the most careful nursing. I think there is sometimes a danger that we may be tempted to concentrate too much upon the advancement of the brighter pupils, the lustre of whose achievements may redound to the credit of the teacher and of the college. In so doing we may, perhaps, tend to give less attention to those lower grades whose numbers preponderate and for whose benefit the whole system has been mainly designed.

When the sub-committee which was appointed to look at this Full Technological Certificate in Building Subjects first met, about a year ago, it soon became evident that we could not consider the F.T.C. *in vacuo* without considering at the same time the content of the courses leading up to it and also the general background of the requirements of the industry. After a very great deal of thought and discussion and several meetings, we reached agreement on four main headings, which I will try to outline briefly as follows:—

1. We consider that the F.T.C. ought to be raised in value and prestige to be of significantly greater value than the Final Certificate and to bring it more in line with the F.T.C. in other industries. We agreed that it should be regarded as the pinnacle (i.e., the apex but still an integral part) of the relevant craft course.

[Continued on page 27]

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2. We believe that one of the most important spheres of possible future advancement for the craft apprentice is in the field of foremanship. Our craft foremen and general foremen in the building industry are almost invariably recruited from the ranks of the craftsmen, and we believe that it is not too early for a lad to commence some sort of preparation for this whilst he is still an apprentice. It should be possible to pick out boys at age 17 to 18 who show some powers of leadership and initiative such as seem likely to fit them later for this type of responsibility. We believe that such lads should be encouraged to carry right through with their craft training to their Final Certificate and, at the same time, that they should follow additional courses of study in such subjects as English, mathematics, science and building construction, or other appropriate subjects in special cases, such as woodworking machinists' or painters and decorators' work. We think that to qualify for F.T.C. these subjects should be taken to a level permitting direct entry to the second year of a National Certificate Course and that, after completion of the Craft Course, the additional subject of the Elements of Organization and Administration should be taken and set at a level appropriate to a student aspiring to become a craft foreman.

We further recommend that the Institute should publish syllabuses and take some responsibility, together with the Regional Examining Unions, for examinations in these ancillary subjects qualifying for the award of the F.T.C.

3. The Committee consider that, for the benefit of the majority of craft students, greater importance should be attached to Pre-Senior Technical Courses and the present requirements of attendance at separate classes in Science, Mathematics and Building Construction might be eliminated for many students and greater emphasis placed upon craft practice and processes. Most craft apprentices are interested in, and anxious to obtain, qualifications in what they consider to be the essentials of their craft, but many of them are resistant to instruction offered under the label of science or calculations. For these students instruction in these subjects should only be such as is closely related to their craft and given in such a manner as to enable them to trace the connection. More time might be given to workshop practice and to craft processes, such as analysis of work, selection of process or equipment, choice of materials, standard of work, inspection of quality of product and, perhaps, safety precautions.

4. We feel very strongly that, right from the very beginning of their training, instruction in some form should be given to all students on the evolution, history and functions and structure of the building industry to try to generate in them the feeling of being members of a team, to realize their responsibility to their employers and to their fellow workmen, and to take a pride in their place in the scheme of things.

To sum up, I think that I could say that, in our rather wide review of the training of craft apprentices, we found a pattern emerging in which the apprentices might be considered as falling into three main groups.

First, and most important, would be the great majority who would not seem likely to be able to rise to positions of much responsibility. For these we consider that the emphasis should be on the practical side, that they should stick to their craft studies and not dissipate their energies in studies of ancillary subjects in which it may be hard to interest them and in which they are not likely to be able to absorb sufficient to be of much use to them.

Second, there is the type of lad which we must have for our future craft foreman and general foreman. He should stick to his craft courses with the parallel study of such ancillary subjects as I have mentioned previously leading to his Full Technological Certificate. The award of the F.T.C. should find him prepared to go on to the further courses of study for general foremanship with which the Institute is now beginning to concern itself.

Third, and last, there is that type of student, of which there are quite a few, who has somehow slipped through the Grammar School net and who is frequently more interested in academic studies than in workshop practice and who will probably, sooner or later, come to the administrative side of the industry. In my opinion, such a student can go into

the National Certificate stream as soon as he has passed his Intermediate Craft Examination. I would remind you that there is now a scheme in operation in some regions by which such lads can be transferred to a Student Apprenticeship at age 17 or thereabouts.

For both these last two special categories it will frequently be found possible to arrange with the lad's employer to continue to grant him day-release beyond the age of 18, should this be necessary—if the right approach is made to the employer.

For all craft apprentices my Committee felt that we could not stress too strongly the importance of Pre-Senior technical courses when the primary or basic education is found to be of a strength inadequate to bear the superstructure which we hope to build upon it.

As I have said before, we also consider that all should be given, from the very beginning and as part of the curriculum, some insight into the history and function of the industry into which they have been recruited and they should be taught their craft responsibility therein.

My sub-committee did not concern themselves too deeply with the mechanics of these suggested changes, nor with difficulties that might be found in fitting them into the present time-table. We have stated that we are prepared to give more detailed consideration to these difficulties and also to submit more precise and detailed recommendations if called upon to do so.

We felt that it was necessary first to obtain general support for the principles involved in these changes which, on examination, I think you will find are not really very revolutionary, but rather changes of emphasis.

* * *



When the tower of Blackpool's popular switchback, the "Big Dipper," was rebuilt recently after destruction by fire, aluminium was used for certain features on account of its lightness, resistance to corrosion by sea air and, not least, its bright appearance which accords well with the architecture of the rest of the Pleasure Beach. The most striking of these features is a decorative "sphere" situated at the top of the tower over 70ft above ground level and visible fifty miles away when lit up.

The materials used were Noral SISWP extruded sections and Noral 35H sheet, 16 SWG on the roof and 20 SWG elsewhere. The architect was Joseph Emberton, F.R.I.B.A. The structural design, fabrication and erection were by Aluminium Construction Ltd., Woking.

MOSAICS

SERVICES

SPACE HEATING

B3/61



Bowl fire No. 30C by Hotpoint Electric Appliance Co. Ltd., Crown House, Aldwych, London, W.C.2 is designed to meet B.S.S. 1470. The chromium-plated reflector can be tilted and fixed at various angles to focus the warmth where it is most wanted. The base and pedestal are finished in black enamel and the plated steel guard conforms to B.S.S. 1945. Standard voltages: 200/210, 230/240 and 250 A.C./D.C. 600 or 750 watt elements can be supplied.

SERVICES

MISCELLANEOUS

B7/2



This electrothermal P.V.C. pipe heater by Electrothermal Engineering Ltd., 270 Neville Rd., London, E.7 may be used for unfreezing pipes, as well as the prevention of frost damage, and the heating of pipe-lines. The heater is approx. 1/2 in wide and is available in 50ft, 25ft or 12 1/2 ft lengths for operation on mains or other voltages. The loading for each size is 7 watts per linear ft. Up to four 50ft heaters may be joined to give a 200ft length and the supply fed to one connector only. Other applications are for tanks, vessels, valves, process heating, machine parts, pumps and pipe-lines handling fats, waxes, chocolate, molasses, fuel oils, etc.

FITTINGS

OFFICE FURNITURE

CS/6



The "Fonadek" telephone amplifier is produced by Fonadek (Branson) Ltd., Vivian Rd., Birmingham, 17. When making a telephone call the receiver is placed on the Fonadek and the number dialled without again touching the receiver. You may then speak into the telephone without holding the receiver. Replies come through the Fonadek, amplified, so that others, if present, can also hear both sides of the conversation. The only control is one for volume. Available for either battery or mains operation (A.C. only).



PLANT

MISCELLANEOUS

E16/1

This instantaneous self-sealing air-hose coupler is produced by Victor Products (Wallsend) Ltd., Wallsend-on-Tyne. Designed for high and low pressure air-hoses, the coupler incorporates a rubber seal ring with simple action. The stem of the coupler is inserted into the spud, air is turned on and this causes the rubber ring on the stem to "rock" forward giving the initial sealing action. As the air pressure is increased so the complete sealing action is effected.

It cannot be uncoupled under working pressure. An additional safety factor is a special spring bridge which holds the two parts together; this allows the stem to rotate within the spud for the removal of kinks and twists in the hose. The range covers hose sizes of 1/2 in, 3/4 in and 1 in as hose-to-hose coupler or compressor-to-machine coupler.

INDUSTRIAL NOTES

● New London showrooms have been opened by Dimplex, Ltd., at 17, Shepherd Street, W.1. Telephone: Grosvenor 1025.

● The Export Credits Guarantee Department (the Government Department providing insurance against the major risks of exporting) announces the appointment of Mr. Philip Jones as Press and Publicity Officer.

● Mr. R. H. Roberts has been presented with a silver gilt cigarette box to mark his completion of 50 years with Birmingham Guild, Ltd., architectural metal workers.

● Pilkington Brothers, Ltd., are restarting the Queenborough Works of Sheet Glass, Ltd. It is expected that it will take from four to five months to complete the necessary preparations for glass making.

● The Birmingham Area Sales Office of the Northern Aluminium Co., Ltd., has removed to new offices at 14, Bennetts Hill, Birmingham, 2. The telephone number, Midland 5236, and telegraphic address, Noralumin Birmingham, remain unchanged.

● Tyrol Sales, Ltd., have moved to 54, Park Lane, Croydon, Surrey. Telephone number: Croydon 4529.

● The directors of British Plumber, Ltd., have appointed Mr. Thomas B. Dodson general manager of the company with effect from December 6, 1954.

● Mr. J. Stanleigh Turner, J.P., was re-elected President of the Coal Utilisation Council for the seventh successive year, and Sir John Charrington was re-elected Vice-president. They, along with Sir William McGilvray, C.B.E., and Mr. H. V. Shelton, were elected as Trustees of the Council for another year.

● Mr. H. E. Peirce, chairman of the Ballast, Sand and Allied Trades Association, flew to America on January 3 to meet American sand and gravel producers.

● British Insulated Callender's Cables, Ltd., announce that their branch offices at Exeter and Plymouth each have an additional telephone number. Their numbers are now Exeter 67308 and 3514 and Plymouth 60257 and 65151, also that the address of their Middlesbrough district office is now 55/57, Borough Road, Middlesbrough, telephone number 43644.

● Permanite, Ltd., the roofing felt and dampcourse manufacturers, announce the appointment of Mr. J. S. Sheppard as joint sales manager with effect from January 1.

● Mr. Peter Dingley has been appointed a director of Conex-Terna, Ltd., Great Bridge, Staffs, makers of the Conex compression joints for copper pipe. Mr. Dingley has for some years been a director of Sanbra, Ltd., and has been sales manager of that company.

● The Glass Manufacturers' Federation held their annual general meeting on Tuesday, December 14, at the Federation's Offices, 19, Portland Place, London, W.1. Mr. E. A. S. Alexander, managing director of The United Glass Bottle Manufacturers, Ltd., was elected President of the Federation for the second year in succession. Dr. W. Maskill, joint managing director of Webb Corbett, Ltd., was elected Chairman of the Executive Committee of the Federation for the second year in succession. Mr. A. W. Clark, managing director of Beaton, Clark & Co., Ltd., was elected vice-chairman of the Executive Committee.

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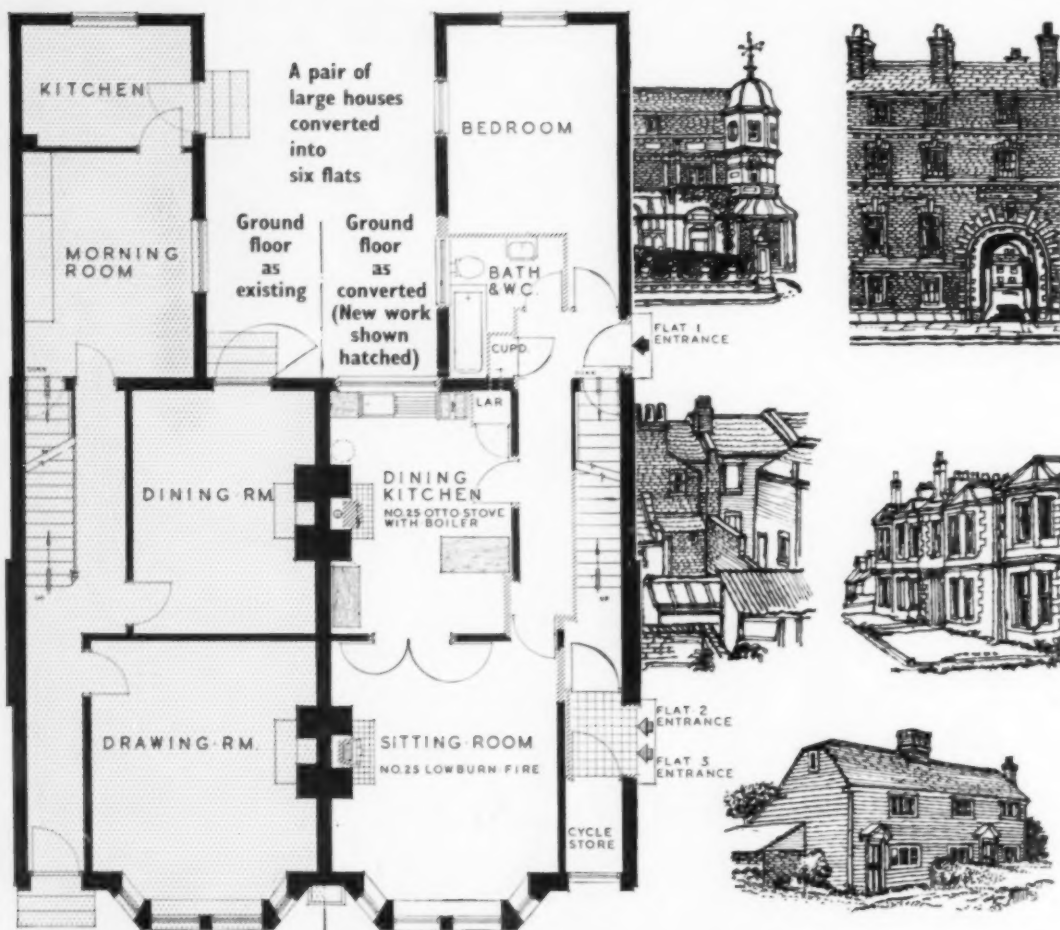
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Plans and Proposals. Five main types of houses have been dealt with by Mr. Michael Shephard, B.Arch., A.R.I.B.A. The four and five roomed urban terrace houses; agricultural dwellings, large houses and tenements which convert into flats.

Complete sets of plans, sections, elevations and perspective drawings are given for each type. Drawings and explanations of work involved are based on existing houses.

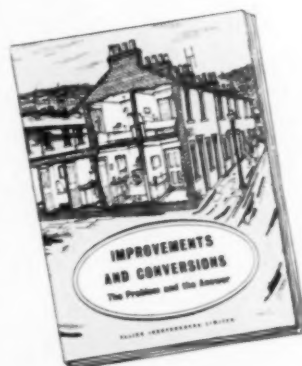
Questions of Law. This section answers your queries on Circulars and Acts, Grants, rent increases and Local Authority loans.

Questions of Fact. The general statement of the improvements and conversions task.

Situation Survey. Illustrated examples of work in progress up and down the country; with notes on costs.

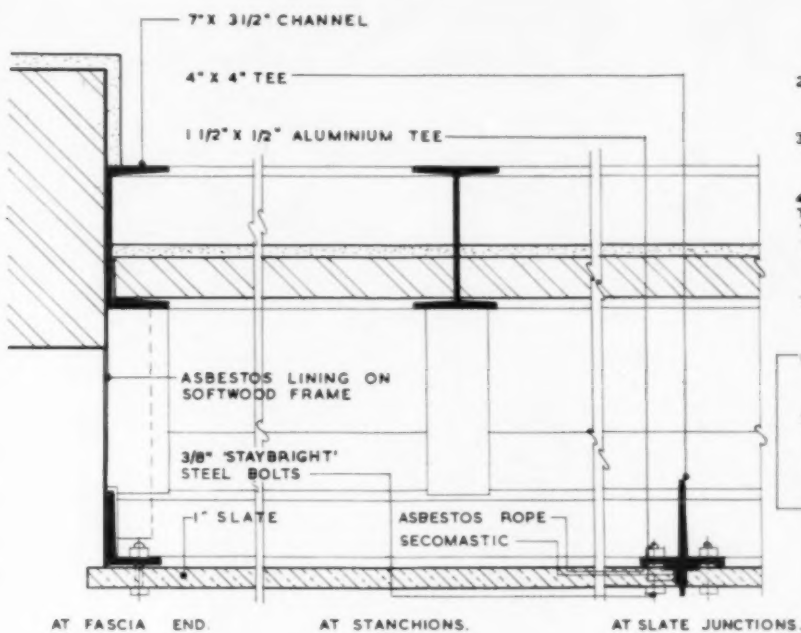
Tools for the job. A detailed review of appliances required for improvements and conversions, including cookers, water heaters, space heaters, kitchen equipment and baths.

This book has been prepared for practising Architects, Surveyors and Municipal Authorities. Please write and ask for a copy, giving your office address, to:—

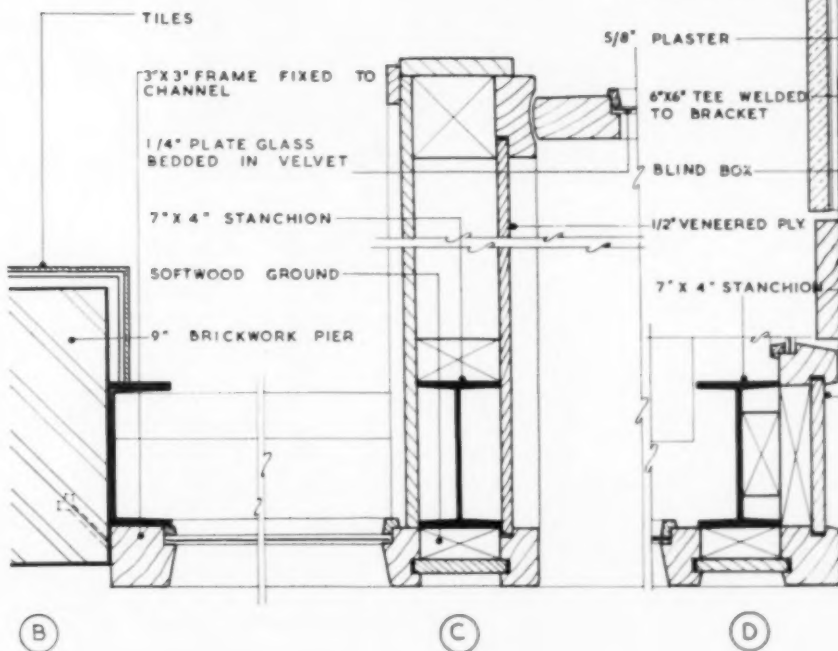


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PLAN AT A - A

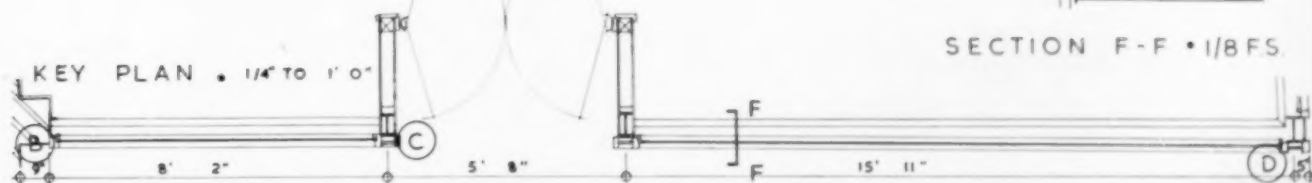


(B)

(C)

(D)

1/8 F.S. PLAN AT E - E



SECTION F - F . 1/8 F.S.



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Notes below give basic data of contracts open under locality and authority which are in bold type. References indicate: (a) type of work, (b) address for application. Where no town is stated in the

CONTRACT • NEWS •

OPEN

BUILDING

AIREBOROUGH U.C. (a) Erection and completion in all trades of a library at Otley Road, Guiseley. (b) Engineer and Surveyor, Micklefield House, Rawdon, near Leeds. (c) 2gns. (e) Jan. 17.

ALNWICK R.C. (a) 9 houses and 6 houses, Longhoughton. (b) Council's Clerk, Old Court Buildings, 34, Green Batt. (c) 2gns. (d) Jan. 8.

ASHBY-DE-LA-ZOUCH U.C. (a) 42 houses, 10 bungalows and 8 flats, Willesley Road site. (b) Messrs. Pick, Everard, Keay and Gimson, 6, Millstone Lane, Leicester. (c) 3gns. (e) Jan. 24.

AYLESBURY B.C. (a) 96 houses, Gatehouse Estate, Oxford Road. (b) Borough Engineer, "Friarscourt," 3, Oxford Road. (c) 2gns. (e) Jan. 25.

BASINGSTOKE B.C. (a) 13 dwellings, South Ham Estate. (b) Borough Architect, Municipal Buildings. (c) 2gns. (e) Jan. 21.

BURNLEY B.C. (a) Erection of a crematorium, Accrington Road. (b) Messrs. Taylor and Young, 195, Oxford Road, Manchester, 13. (c) 2gns. (d) Jan. 11. (e) Feb. 7.

CALNE B.C. (a) 24 Trusteel houses, Lickhill Estate. (b) Messrs. George Brown and Partners, Brunel House, College Green, Bristol 1. (c) 2gns.

CRAWLEY DEVELOPMENT CORPORATION. (a) Erection of standard factories at Site No. 3, in reinforced concrete barrel vault construction. (b) Chief Architect, Broadfield, Crawley. (d) Jan. 10.

DARTFORD R.C. (a) 12 houses and flats, Beesfield Lane, Farningham. (b) Engineer and Surveyor, Council Offices, West Hill. (c) 2gns. (e) Jan. 17.

ESSEX C.C. (a) Erection of the first instalment of Braintree College of Further Education (approx. cost £60,000). (b) County Architect, County Hall, Chelmsford. (d) Jan. 15.

HINDLEY U.C. (a) Alterations to Leyland Free Library, involving concreting, brickwork, joiners' work and asphaltic flooring. (b) Engineer and Surveyor, Town Hall. (c) 2gns. (e) Jan. 14.

LINCOLN C.C.—PARTS OF KEST-EVEN. (a) Extensions to the Kesteven and Grantham Girls' Grammar School. (b) County Architect, County Offices, Sleaford. (e) Jan. 24.

LINDSEY C.C. (a) Secondary school, Skegness. (b) Messrs. Evans, Cartwright and Woollatt, 11, London Road, Derby. (e) Feb. 11.

LIVERPOOL C.C. (a) Conversion of premises at 60, Heath Road, Liverpool, 19, to form a shop and flats. (b) City Architect, Blackburn Chambers, Dale Street, Kingsway, 2. (c) 2gns. to City Treasurer. (e) Jan. 20.

address it is the same as the locality given in the heading, (c) deposit, (d) last date for application, (e) last date and time for submission of tenders. Full details of contracts marked ★ are given in the advertisement section.

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LIVERPOOL C.C. (a) (1) extensions at Alderwood Avenue Primary School No. 2, Speke; (2) extensions and alterations to kitchen at Northway Primary School, Liverpool, 19. (b) City Architect, Blackburn Chambers, Dale Street, Kingsway, 2. (c) 2gns to City Treasurer, for each contract. (e) Jan. 15.

LONDON—HAMPSTEAD B.C. (a) 22 flats and maisonettes in 2 4-storey blocks, Abbey Road, N.W.8. (b) Town Clerk, Town Hall, Haverstock Hill, N.W.3, with statement of work carried out. (d) Jan. 17.

LUDLOW R.C. (a) 16 houses, with roadworks, sewerage and sewage disposal works, etc., Diddlebury. (b) Engineer and Surveyor, Stone House, Grove Street. (c) 2gns. (e) Jan. 20.

MARPLE U.C. (a) 22 houses, Carver Road site. (b) Council's Surveyor, Council Offices. (c) 3gns. (e) Jan. 21.

MONMOUTHSHIRE C.C. (a) Secondary school, Croesyciliog, near Newport. (b) County Architect, Queen's Hill, Newport. (d) Jan. 15.

NEWBURY B.C. (a) 54 houses, Scheme 6c of Valley Road Estate. (b) Borough Surveyor, Municipal Buildings. (e) Jan. 19.

NEW SARUM C.C. (a) Construction of an attested cattle market at Camells Road, Salisbury, to include reinforced concrete frames, brick and concrete walling, asbestos-cement roofing, offices and sanitary accommodation. (b) City Engineer, Council House, Bourne Hill, Salisbury. (c) 2gns. (d) Jan. 10.

N. IRELAND—BELFAST C.C. (a) Secondary intermediate school for boys, Orangefield, Castlereagh, Belfast. (b) Education Architect, 40, Academy Street. (c) £5. (e) Feb. 3.

N. IRELAND—CLOGHER R.C. (a) 25 houses and 8 garages, Crossowen, Glogher, with road and drainage work. (b) Messrs. McCarthy and Lilburn, Scottish Provident Buildings, Donegall Square West, Belfast. (c) 5gns. (e) Jan. 14.

N. IRELAND—LONDONDERRY CORPORATION. (a) 8 aged persons' bungalows, 62 dwellings and 30 dwellings, with roads and sewers, at Glen Road-Northland Road area, Cloughglass. (b) Housing Architect, 5, Guildhall Street. (c) £5 to City Accountant. (e) Jan. 29.

NORFOLK C.C. (a) Erection of an aged persons' home, King's Lynn. (b) County Architect, 27, Thorpe Road, Norwich. (d) Jan. 17.

NORTHFLEET U.C. (a) Block of 4 shops and 10 flats, Coldharbour Road Estate. (b) Engineer and Surveyor, Council Offices. (a) 2gns. (e) Jan. 27.

NORTHUMBERLAND C.C. (a) 4 classrooms as extensions to Blyth Beside C.P. School. (b) County Architect, County Hall, Newcastle-upon-Tyne, 1. (c) 2gns. (d) Jan. 17.

OLDBURY B.C. (a) General maintenance and repair works to municipal houses in various parts of the Borough on either (1) a time and material basis, or (2) a time basis only. (b) Housing Manager, Housing Department, Talbot Street. (e) Jan. 17.

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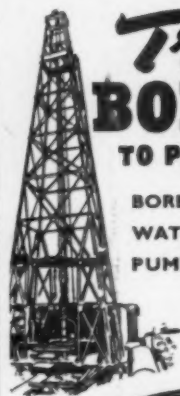
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FLAGSTAFFS

PETERBOROUGH JOINT EDUCATION BOARD. (a) Erection of additional accommodation for Castor C.E. School. (b) Messrs. Portess and Richardson, Lloyds Bank Chambers, Cathedral Gateway. (c) 2gns. (e) Jan. 17.

PORTSMOUTH C.C. (a) Erection of a special secondary school, Highbury. (b) City Architect, 1, Western Parade. (c) £1. (d) Jan. 12.

PORT TALBOT B.C. (a) 40 houses, Home Farm site, Baglan. (b) Borough Engineer, Municipal Buildings. (c) 2gns. (e) Jan. 17.

ROTHEWELL U.C. (a) (1) Demolition of 4 cottages at 14-20, High Street, and (2) erection of a post office and 2 shops with 2 flats above and 1 cottage on the site. (b) Council's Surveyor, Manor House. (c) 2gns. (e) Jan. 18.

SALFORD C.C. (a) Adaptation of the Non-Conformist Chapel at Northern Cemetery, Agecroft, Pendlebury, to form a crematorium. (b) City Engineer, Town Hall, 3. (c) 3gns. (e) Jan. 17.

SALISBURY AND WILTON R.C. (a) Pair of houses, with drains, fences, paths, water main and sewage treatment plant extension, Burcombe. (b) Council's Clerk, Council Offices, 26, Endless Street, Salisbury. (c) 2gns. (e) Jan. 19.

SCOTLAND—DAVAAR ISLAND (CAMBELTOWN). (a) Erection of a lighthouse keeper's house at Davaar Island. (b) Scottish Special Housing Association, Ltd., 15-21, Palmerston Place, Edinburgh, 12.

SCOTLAND—KILWINNING B.C. (a) 8 shops and 4 houses in 2 blocks, Redstone site. (b) Joint Town Clerks, Kilwinning. (d) Jan. 8.

SCOTLAND—LANARKSHIRE FIRE BRIGADE JOINT COMMITTEE. (a) House at Bothwell Road, Hamilton (all or separate trades). (b) Clerk, P.O. Box No. 1, Lanarkshire House, 191, Ingram Street, Glasgow, C.1. (d) Jan. 10.

SCOTLAND—SELKIRK B.C. (a) 34 houses, Bannerfield site. (b) Messrs. Basil Spence and Partners, 40, Moray Place, Edinburgh, 3. (e) Jan. 15.

SMETHWICK B.C. (a) Erection of the first instalment of Sandwell Secondary School. (b) Chief Education Officer, Education Offices, 215, High Street. (c) 2gns. cheque payable to Borough Treasurer.

SOUTHAMPTON B.C. (a) 10 shops, 12 maisonettes and 5 flats at Millbrook. (b) Borough Engineer, Civic Centre. (c) £2. (d) Jan. 11.

STOCKPORT CORPORATION. (a) Conversion of premises at Travis Street, to form an Auxiliary Fire Service Station. (b) Borough Surveyor, Town Hall. (c) 2gns. (e) Jan. 18.

THAME U.C. (a) 2 pairs of houses, 2 blocks of 4 houses, 2 blocks of 4 houses and 1 pair of houses, Wellington Street Estate. (b) Raymond C. White, 4, Temple Square, Aylesbury, Bucks. (c) 3gns. payable to Council. (e) Jan. 17.

WAKEFIELD C.C. (a) Erection of (1) 230 houses, Kettlethorpe Estate; (2) 12 flats, Gloucester Road, Lupset; (3) branch library, Flanshaw. (b) City Engineer, Town Hall. (d) Jan. 12.

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WALLASEY B.C. (a) Erection of a mess room and ticket office at New Brighton Ferry Pier. (b) General Manager, Seacombe Ferry, Wallasey. (c) Jan. 15.

WALLASEY B.C. (a) Block of conveniences, Liscard Road. (b) Borough Architect, Town Hall. (c) Jan. 19.

WEST RIDING C.C. (a) Fire station, Gracious Street, Knaresborough. (b) County Architect, "Bishopgarth," Westfield Road. (c) 2gns. (d) Jan. 28.

WEST RIDING C.C. (a) Building trade's instruction centre, Strawberry Street, Keighley. (b) County Architect, "Bishopgarth," Westfield Road. (c) 1gn. (d) Jan. 24.

WEST SUSSEX C.C. (a) Extensions at (1) Buckingham Road Primary School, Hamfield, Shoreham; (2) Raleigh Road Primary School, Rose Green, Bognor Regis; (3) Elm Grove Road Infants' School Littlehampton. (b) County Architect, County Hall, Chichester. (d) Jan. 14.

WEST SUSSEX C.C. (a) Erection of caretaker's houses at (1) Langley Green Primary School; (2) Northgate Primary School; and (3) Three Bridges Primary School. (b) County Architect, County Hall, Chichester. (d) Jan. 14.

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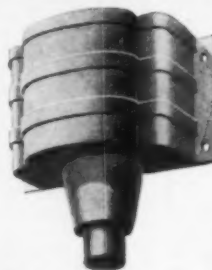
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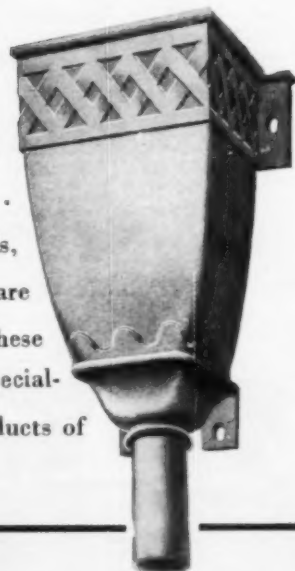
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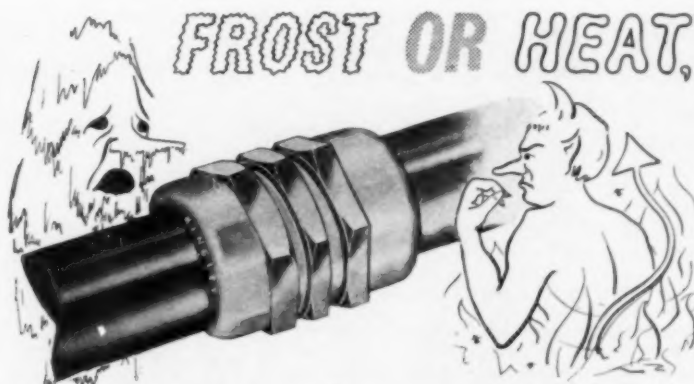
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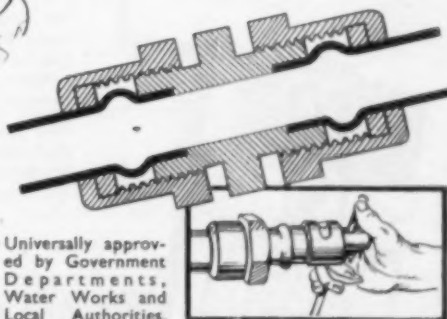
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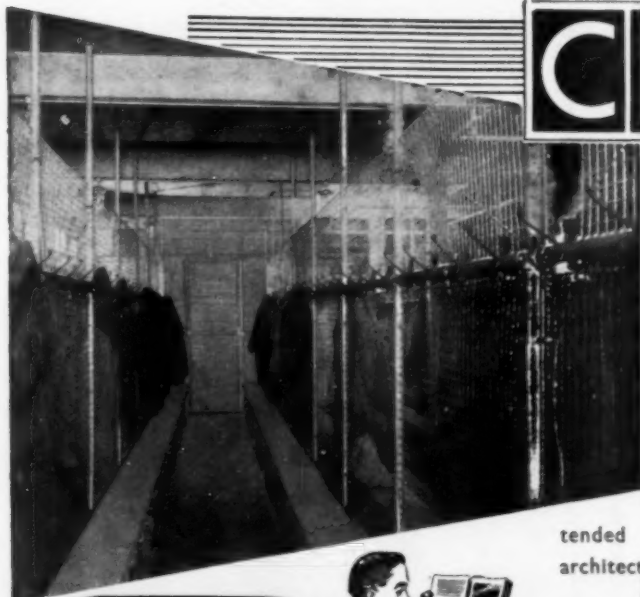
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APPOINTMENTS

The engagement of persons answering these advertisements must be made through the local office of the Ministry of Labour and National Service, etc., if the applicant is a man aged 18-64 or a woman aged 18-59 inclusive, unless he or she or the employer is exempted from the provisions of The Notification of Vacancies Order, 1952.

MINISTRY OF WORKS.

ARCHITECTURAL ASSISTANTS required for drawing offices in London, Edinburgh and various provincial offices, including Aldermaston, Berks; Harwell, Berks; Nancekuke, Cornwall; Ranskill, Notts; and Bishopston, Renfrew.

Candidates must have had at least three years' architectural training, some experience in an architect's office, and be of Intermediate R.I.B.A. standard.

London salary £442-£695 per annum. Rates elsewhere slightly less. Starting pay according to age and experience. Prospects of promotion and establishment.

State age, full details of training and experience and office desired, to E. Bedford, Esq., C.V.O., A.R.I.B.A., Chief Architect, Ministry of Works, W.G.10/C.A.10(G), Abell House, John Islip Street, London, S.W.1. [8537]

MINISTRY OF WORKS.

LEADING ARCHITECTURAL ASSISTANTS required for drawing offices in the Chief Architect's Division in London, Edinburgh and various provincial offices.

Candidates must have had at least three years' architectural training, good experience in an architect's office, and be of Intermediate R.I.B.A. standard. London salary £710 to £834 per annum. Rates elsewhere slightly less. Starting pay according to experience. Prospects of promotion and establishment.

State age, full details of training and experience and office desired, to E. Bedford, Esq., C.V.O., A.R.I.B.A., Chief Architect, Ministry of Works, W.G.10/C.A.10(G), Abell House, John Islip Street, London, S.W.1. [8525]

LANCASHIRE COUNTY COUNCIL— PLANNING DEPARTMENT.

SENIOR Planning Assistant (Architectural) amended A.P.T. Grades III-IV (£600-£825) required at Preston. Candidates should be qualified architects, knowledge of civic design an advantage. Salary within grades according to qualifications and experience. Duties include the preparation of layouts for housing estates and redevelopment schemes and constructional drawings for houses and ancillary buildings. Applications giving age, qualifications, experience, salary, and two referees to County Planning Officer, East Cliff County Offices, Preston, by the 21st January, 1955. [8637]

OFFICE OF THE RECEIVER FOR THE METROPOLITAN POLICE DISTRICT.

APPLICATIONS are invited for unestablished appointments as **LEADING ARCHITECTURAL ASSISTANTS** in the Architect and Surveyor's Department. The work is concerned with the design and construction of police dwellings and buildings and candidates will be required to work in the Westminster area.

Rates of pay:—

Men: £665 x £20-£755 x £25-£780.

Women: £580 x £20-£640 x £25-£665.

The scales quoted are subject to an increase of approximately 3 per cent while a 45-hour week is being worked and also to the addition of a Pay Supplement of £25 or £30 per annum according to the point reached on the scale.

Conditioned hours, 44 per week.

Annual leave, 24 days.

Application forms from the Chief Architect, Architect and Surveyor's Department, New Scotland Yard, London, S.W.1, marking the envelope "Architectural Assistants." [0632]

WORCESTERSHIRE COUNTY COUNCIL.

A VACANCY exists for a **JUNIOR ARCHITECTURAL ASSISTANT** on the new Grade I at an appropriate point within the salary scale £500 x £20 to £580. Forms of application may be obtained from L. C. Lomas, F.R.I.B.A., County Architect, 14, Castle Street, Worcester. (U.73.) [8657]

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APPOINTMENTS—contd.

NORFOLK COUNTY COUNCIL.

COUNTY ARCHITECT'S DEPARTMENT.

APPLICATIONS are invited for the following posts:—

Chief Assistant Architect: A.P.T. Grade V. (£750 x £30-£900). Candidates must be qualified with good general experience in design, construction, and all aspects of handling building contracts.

Architectural Assistant: A.P.T. Grade II (£560 x £20-£640). Candidates should be of Intermediate R.I.B.A. standard with general office experience.

Both appointments are permanent and are subject to Local Government Superannuation Acts and National Joint Council Service Conditions.

Applications stating age, full details of training, experience, qualifications, past and present appointments, and names of three referees to Mr. C. H. Thurston, County Architect, 27, Thorpe Road, Norwich by January 17th. [8639]

THURROCK URBAN DISTRICT COUNCIL.

ARCHITECTURAL ASSISTANTS.

APPLICATIONS are invited for the appointment of two **ARCHITECTURAL ASSISTANTS** at salaries within the new Grade II of the A.P.T. Division of the National Scale of Salaries, i.e. £560 rising to £640 per annum.

General Architectural experience is necessary. Applicants must be capable of preparing detailed plans and specifications and supervising housing schemes. Candidates should have passed the intermediate examination of the Royal Institute of British Architects.

Housing accommodation, if necessary, may be provided for the successful applicants if they live more than 20 miles from the Thurrock Urban District.

The appointments are subject to the provisions of the Local Government Superannuation Act, 1937, and the successful applicants will be required to pass a medical examination.

Applications, endorsed "Architectural Assistant Grade II," stating age, qualifications and experience, with copies of three recent testimonials, should reach the undersigned not later than Wednesday, January 12, 1955.

Canvassing will disqualify, and applicants must disclose in writing any relationship to any member or senior officer of the Council.

A. E. POOLE,
Clerk of the Council.

Council Offices,

Whitehall Lane,

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Applications in duplicate giving full particulars with copies of 3 recent testimonials also in duplicate to Messrs. Allen & Williams, 1, Victoria Street, London, S.W.1, before Thursday, January 13th, 1955. [8641]

COUNTY BOROUGH OF EAST HAM.

SENIOR ARCHITECTURAL ASSISTANT, NEW GRADE IV: £675-£825.

QUANTITY SURVEYOR, NEW GRADE II: £560-£640.

LONDON Weighting is paid in addition. Salary in excess of the minimum may be paid according to qualifications and experience.

Subsistence allowances may be granted over a reasonable period to the persons appointed if unable to obtain suitable housing accommodation, necessitating the maintenance of two homes.

Further details and application forms returnable by January 14, 1955, from the Town Clerk, Town Hall, East Ham, E.6. [8654]

APPOINTMENTS—contd.

BOROUGH OF EPSOM AND EWELL.

BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.

APPOINTMENT OF ARCHITECTURAL ASSISTANT.

APPLICATIONS are invited for the appointment of an Architectural Assistant A.P.T. II (£560-£640) plus London Weighting. Applications giving details of age, qualifications, training and experience with names and addresses of three referees should be sent to Mr. Norman Auty, M.Inst.C.E., M.I.Mun.E., Borough Engineer and Surveyor, not later than Saturday, January 22nd.

EDWARD MOORE,

Town Clerk.

Town Hall,
The Parade,
EPSOM. [8640]

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JUNIOR QUANTITY SURVEYOR

APPLICATIONS are invited for the above position in the Chief Engineer's Department in Central London.

Applicants should have had experience in working-up in all trades, and the successful candidate will work under the direction of a Chartered Quantity Surveyor.

The post is graded under Schedule 'C' of the National Joint Board agreement as Grade 7-£500 per annum rising to £640 10s per annum, inclusive of London Allowance.

Application forms obtainable from Personnel Officer, 46, New Broad St., E.C.2, to be returned completed by 19th January, 1955. Please enclose addressed envelope and quote ref.: V/1845/AA on envelope and all correspondence. [8661]

LONDON ELECTRICITY BOARD.

ARCHITECTURAL DRAUGHTSMEN.

APPLICATIONS are invited for the above positions in the Architect's Section of the Chief Engineer's Department in Central London.

Applicants should be neat draughtsmen and preferably have had several years' experience in an Architect's office.

The post is graded under Schedule "D" of the National Joint Board agreement as Grade 6-£535 10s to £661 10s per annum, inclusive of London Allowance.

Application forms obtainable from the Personnel Officer, 46, New Broad St., E.C.2, to be returned by January 22nd, 1955. Please enclose addressed envelope and quote ref. V/1785/AA on envelope and all correspondence. [8655]

COUNTY BOROUGH OF EAST HAM.

ARCHITECTURAL ASSISTANT NEW GRADE III £600-£725.

LONDON Weighting is paid in addition. Salary in excess of the minimum may be paid according to qualifications and experience.

A subsistence allowance may be granted over a reasonable period to the person appointed if unable to obtain suitable housing accommodation, necessitating the maintenance of two homes.

Further details and application forms returnable by January 14th, 1955, from the Town Clerk, Town Hall, East Ham, E.6. [8650]

COUNTY BOROUGH OF EAST HAM.

TEMPORARY ESTIMATOR NEW GRADE III £600-£725.

LONDON Weighting is paid in addition. Salary in excess of the minimum may be paid according to qualifications and experience.

A subsistence allowance may be granted over a reasonable period to the person appointed if unable to obtain suitable housing accommodation, necessitating the maintenance of 2 homes.

Further details and application forms returnable by January 14th, 1955, from the Town Clerk, Town Hall, East Ham, E.6. [8642]

APPOINTMENTS—contd.

WELSH REGIONAL HOSPITAL BOARD.

APPLICATIONS invited for post of ASSISTANT ARCHITECT on permanent staff of Regional Architect, Maesycroed Road, Cardiff. Salary £600 x £25(7) x £30(3)—£865.

Applicants must be Registered Architects and should have passed Final Examination of the Royal Institute of British Architects. They should be suitably experienced in preparation of working drawings and specifications, surveying and levelling and supervisions of contracts.

The appointment is subject to the National Health Service (Superannuation) Regulations and terminable by one month's notice on either side.

Applications, stating age, experience, qualifications and present position, together with names and addresses of two referees, should be sent to The Secretary of the Board, Temple of Peace & Health, Cathays Park, Cardiff, within 14 days of the appearance of this advertisement. [8658]

LONDON ELECTRICITY BOARD.

SENIOR DRAUGHTSMAN.

APPLICATIONS are invited for the above position in the Design & Planning Branch of the Northern Sub-Area at Aldersgate, London, E.C.1.

Applicants should have had training and experience in building construction and the design of steelwork and reinforced concrete structures, and be capable of preparing drawings and making calculations for the alteration of existing premises and the conversion of assessments into sub-stations and transformer chambers. Experience in the layout of electrical equipment up to 11kV, whilst not essential, would be an advantage.

The post is graded under Schedule "D" of the National Joint Board agreement as Grade 5, commencing salary within range £672 to £777 per annum, inclusive of London Allowance.

Application forms obtainable from Personnel Officer, 46, New Broad St., E.C.2, to be returned completed within ten days of the publication of this advertisement. Please enclose addressed envelope and quote ref. V/1692/AA on envelope and all correspondence. [8651]

URBAN DISTRICT COUNCIL OF CORBY.

ENGINEER AND SURVEYOR'S DEPARTMENT.

APPLICATIONS are invited for the undermentioned appointments in the department of the Engineer and Surveyor.

(1) SENIOR ARCHITECTURAL ASSISTANT. Salary in accordance with new Grade A.P.T. IV (£675—£825), commencing at £675 per annum.

Applicants must be Registered Architects and should have considerable experience in design, construction and contract administration.

(2) SENIOR QUANTITY SURVEYOR. Salary in accordance with new Grade A.P.T. IV (£675—£825), commencing at £675 per annum.

Applicants must have passed final R.I.C.S. (Quantities Section) and be thoroughly experienced in the preparation of Bills of Quantities, adjustment of variations and settlement of final accounts. Previous experience of substantial contracts for local authority housing is desirable.

The provisions of the Local Government Superannuation Act, 1937-1953, will apply in respect of each appointment. Housing accommodation will be made available to successful candidates, if married.

Forms of application may be obtained from the undersigned, and requests therefor should indicate the position for which application is being made. Completed forms must be received not later than 9 a.m. on Saturday, January 22, 1955.

G. B. BLACKALL,
Clerk of the Council.

Council Offices,
Corby.

Northants.
December 23, 1954. [8653]

RURAL DISTRICT COUNCIL OF HATFIELD

ARCHITECT'S DEPARTMENT
APPOINTMENT OF ARCHITECTURAL ASSISTANT

APPLICATIONS are invited for the appointment of Architectural Assistant at a salary in accordance with Grade A.P.T. II (£560 to £640). Preference will be given to candidates who have studied at a Recognized School of Architecture and who have passed the Intermediate Examination of the R.I.B.A. Apply with full particulars and copies of two testimonials to Mr. J. H. Parker, A.R.I.B.A., Architect to the Council, 82, Great North Road, Hatfield, not later than 21st January, 1955.

E. F. CULL,
Clerk to the Council.

16, St. Alban's Road,
Hatfield.
29th December, 1954. [8659]

TENDERS

URBAN DISTRICT COUNCIL OF NORTHFLEET.

TENDERS FOR SHOPS AND FLATS.

TENDERS are invited for the erection of a block of four shops and ten flats (traditional brick construction) on the Coldharbour Road Estate.

The Conditions of Contract will be those of the R.I.B.A. (Revised 1950) which can be seen at the Council Offices, Northfleet, at any time during normal office hours.

Bills of Quantities and Forms of Tender can be obtained from the Engineer and Surveyor at the address below on and after 5th January, 1955, on payment of a deposit of two guineas, which will be returned on receipt of a bona-fide Tender which is not subsequently withdrawn.

Tenders, in plain sealed envelopes endorsed "Tender for Shops and Flats" and bearing no name or mark indicating the sender, must reach the undersigned not later than 12 noon on Thursday, 27th January, 1955. The priced Bill of Quantities should be enclosed in a separate sealed envelope.

The Council do not bind themselves to accept the lowest or any tender.

W. G. FUTCHER,
Clerk of the Council.

Council Offices,
Northfleet,

Kent.

December, 1954. [8643]

MISCELLANEOUS SECTION

RATE : 1/6d. per line, minimum 3/-. average line 6 words. Each paragraph charged separately.

BOX NOS. add 2 words plus 1/- for registration and forwarding replies which should be addressed c/o, "The Architect & Building News," Dorset House, Stamford Street, London, S.E.1.

PRESS DAY Monday. Remittances payable to Iliffe & Sons Ltd., Dorset House, Stamford Street, London, S.E.1.

No responsibility accepted for errors.

ARCHITECTURAL APPOINTMENTS VACANT

The engagement of persons answering these advertisements must be made through the local office of the Ministry of Labour and National Service, etc. if the applicant is a man aged 16-64 or a woman aged 16-59 inclusive, unless he or she or the employer is exempted from the provisions of The Notification of Vacancies Order, 1952.

ASSISTANT required in small busy practice in North Hants. About Intermediate stage. Lady might suit.—Apply with full particulars and salary required to Box 0975, c/o A. & B. N. [8664]

NORMAN & DAWBARN require architectural assistants with about 10 years office experience at salaries by arrangement.—Applications, stating age and details of career, should be made in writing to 5, Gower Street, London, W.C.1. [8638]

SENIOR and Junior Assistants required in busy architect's office on countrywide work of all types. Applicants for senior posts should be Associates of the R.I.B.A. or qualified. Applicants for junior posts should be at or near intermediate standard.—Apply, J. G. L. Poulton, L.R.I.B.A., 79, Regentate, Pontefract. [8655]

BOROUGH of Hamstead require Architectural Assistant (temporary); salary within the interim scale £600/£640 per annum, plus London weighting; appropriate qualifications required; no housing provided.—Applications suitably endorsed giving three references to the Town Clerk, Town Hall, Haverstock Hill, N.W.3. Closing date 24th January, 1955. [8646]

SOUTH WALES brewery company requires Architect or Building Surveyor to take charge of repairs and maintenance of properties; salary in the region of £1,100 per annum; this position provides a fine opportunity for a man of experience, energy and initiative; previous experience of brewing trade preferable, but not essential.—Write, giving as much detail as possible, to Box 0889, c/o A. & B. N. [8649]

ARCHITECTURAL Assistants and Draughtsmen urgently required in Architect's Department (Head Office). Appointments on a permanent basis, with good prospects for applicants with initiative and having sound practical experience and knowledge. Salaries ranging from £500 to £800 per annum according to experience and ability.—Write, giving brief particulars of qualifications and experience, to Chief Architect, George Wimpey & Co., Ltd., 27, Hammersmith Grove, London, W.6. (Envelopes to be marked "Staff Vacancies.") [8652]

ARCHITECTURAL APPOINTMENTS VACANT—contd.

WESTMINSTER City Council requires Architectural Assistant, APT. III (£600-£725, plus London weighting, max. £30 per annum); applicants should be registered architects (A.R.I.B.A.), capable designers, able to prepare sketch schemes, working drawings and approximate estimates and to advise on use of colour; duties include supervision of alterations to buildings (knowledge of structural design and L.B.A. procedure desirable).—Written applications detailing experience, qualifications, age, etc. with two copy testimonials to Town Clerk, City Hall, W.C.2, by 17th January, 1955. [8644]

TWO Architectural Assistants required in the office of the Architect, Eastern Region, British Railways at King's Cross; (a) salary range £660/£750 per annum; applicants should be qualified or should have passed Inter. R.I.B.A. with practical experience; (b) salary up to £620 per annum; applicants should be of Inter. R.I.B.A. standard with practical experience; limited free residential rail travel on entry; certain free and reduced rate rail travel after qualifying period.—Apply in writing giving particulars of age, education, training and experience, previous positions held and any special qualifications possessed, to Civil Engineer, Eastern Region, British Railways, King's Cross Station, London, N.1. [8647]

SITUATIONS VACANT

ASSISTANT required in busy practice in West End, in early '50s, about Intermediate R.I.B.A. standard; excellent opportunities for gaining all-round experience.—Box 0672, c/o A. & B. N. [8636]

SENIOR Design Draughtsmen required by engineers, preferably experienced in structural or mechanical engineering; 5-day week; pension scheme; excellent prospects.—Write in first instance, giving details of age, experience and salary required, to British Ropeway Engineering Co., Ltd., Plantation House, Mincing Lane, London, E.C.3. [8645]

ARCHITECTURAL assistant or building draughtsman, age up to 35, required for work on industrial buildings. Preference given to candidates with Inter R.I.B.A., but this not essential although O.N.C. in building is the minimum acceptable qualification. Applicants should have experience in foundation work, drainage and factory buildings; permanent position and attractive salary; assistance with housing given if necessary.—Write in confidence to Personnel Manager, Michelin Tyre Co., Ltd., Stoke-on-Trent, Staffs, giving all relevant information. [8656]

PARTNERSHIP

LONDON architects seek partnership with west country firm to develop present connections in that area.—Box 0820, c/o A. & B. N. [8658]

CONTRACTS WANTED

SUB-CONTRACTS wanted for steel bending and fixing, labour only.—Apply L. A. Gale & Partner, 17, Hambro Rd., Streatham, S.W.16. [8368]

FOR SALE

WE specialise in white and coloured urinal sets. Let us quote you.—Thos. Lord, Ltd., Mitella Street, Burnley. [0149]

JOINTLESS composition flooring in attractive colour range—quotations free.—Full particulars from the Liotex Asbestos Flooring Co., Ltd., 3, Corbetta Passage, London, S.E.16 (Dept. A), Bermondsey 4341-2-3. [8622]

ALL hardwood mouldings, plain and embossed, embossed ornaments and downls; send for catalogue and to-day's lowest trade prices. Davey's Moulding Mills, Ltd., 60, Pownall Road, Dalton, E.S. Clissold 1543/4. [0142]

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ARCHITECTS' Indemnity Insurance effected. Please write for Proposal Form to E. J. SAXBY, Incorporated Insurance Broker, 37a, Carfax, Hortham, Sussex. Tel. 950. [8549]

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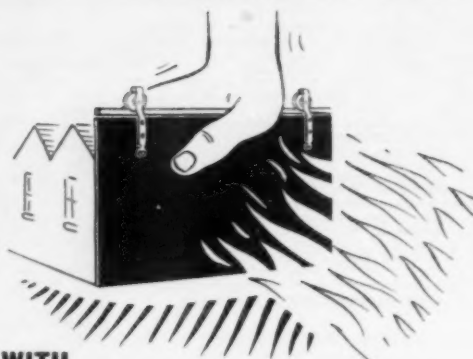
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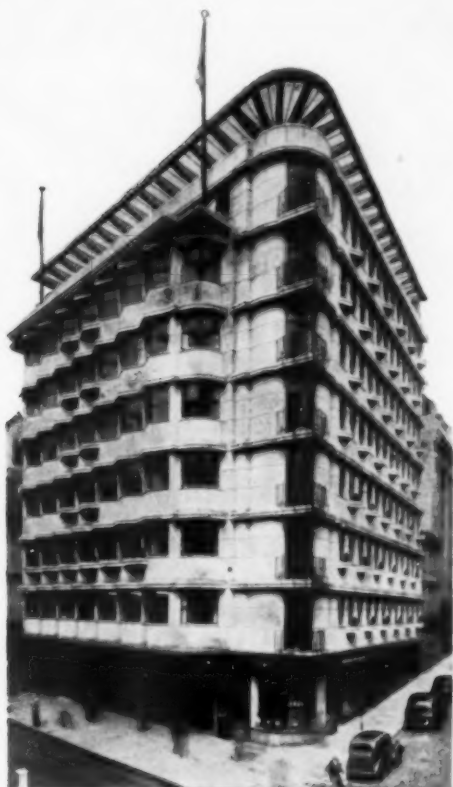


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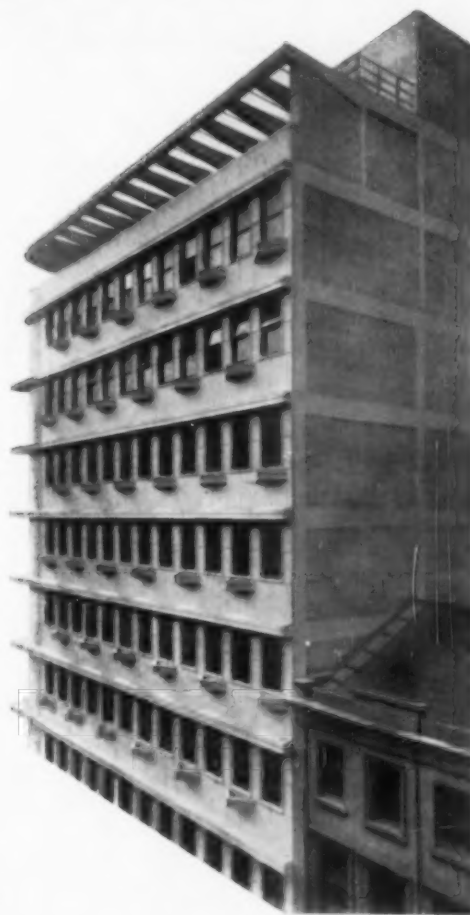
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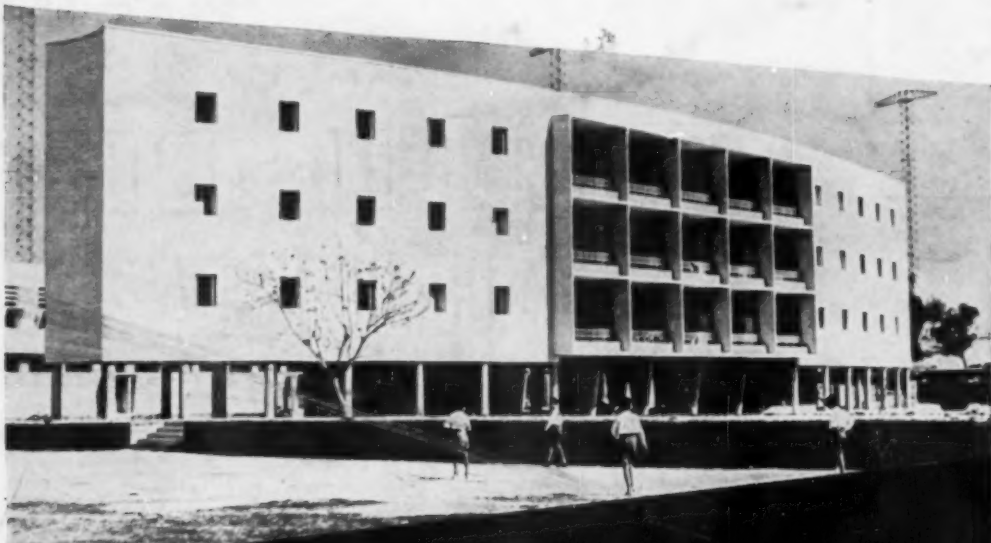
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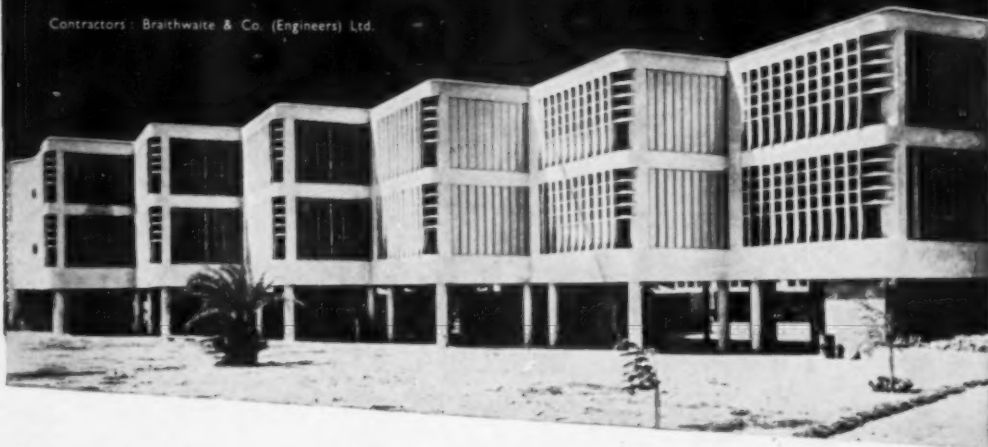
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